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2 p. l., xxi, 487 p. 21cm. (Modern business. Canadian ed. vol. 1)

1. Economics. 1. Title.

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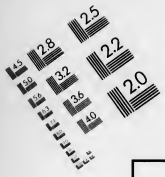
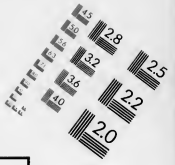

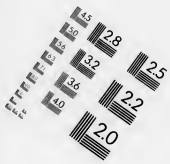

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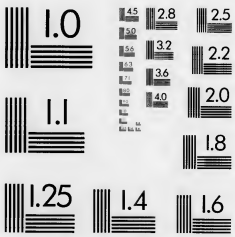

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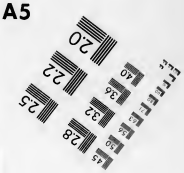

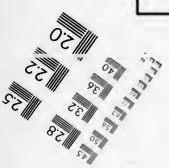
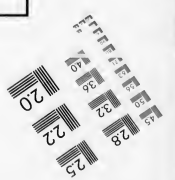

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Modern Business

CANADIAN EDITION

A SERIES OF EIGHTEEN TEXTS, ESPECIALLY PREPARED FOR THE ALEXANDER HAMILTON INSTITUTE COURSE IN ACCOUNTS, FINANCE AND MANAGEMENT

EDITED BY

JOSEPH FRENCH JOHNSON

DEAN, NEW YORK UNIVERSITY SCHOOL OF COMMERCE, ACCOUNTS AND FINANCE
NEW YORK CITY

Title	*Author*
APPLIED ECONOMICS	JAMES MAVOR
ORGANIZATION AND MANAGEMENT	LEE GALLOWAY
SELLING	R. S. BUTLER
CREDITS	LEE GALLOWAY
TRAFFIC	S. J. MCLEAN
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COMMERCIAL LAW	WALTER S. JOHNSON

C

Applied Economics

A PRACTICAL EXPOSITION OF THE SCIENCE OF BUSINESS WITH ILLUSTRATIONS FROM ACTUAL EXPERIENCE

BY

JAMES MAVOR

PROFESSOR OF POLITICAL ECONOMY IN THE UNIVERSITY OF TORONTO; AUTHOR OF "THE ENGLISH RAILWAY RATE QUESTION"; REPORT TO THE GOVERNMENT OF CANADA ON IMMIGRATION; AND VARIOUS OTHER BOOKS AND REPORTS

Modern Business

Canadian Edition

Volume I

ALEXANDER HAMILTON INSTITUTE
NEW YORK

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EDITOR'S PREFACE

The Modern Business Course and Service is designed for wide-awake business men. Its aim is to apply scientific methods of thought in the discussion of the various phases of business; at the same time, to be practical, clear and interesting.

The Course and Service was originally issued in the United States some years ago, and has been most favorably received by the business public. It has been revised from time to time and is kept up to date by the Staff of the Alexander Hamilton Institute. The Course is now rewritten for the use of Canadian readers. Three of the texts in this Canadian revision are entirely new. Every other book and pamphlet has either been thoroughly revised or is original matter written by some authority who is familiar at first hand with Canadian conditions and practice. The result is an unusual combination of the accumulated business knowledge and business experience of both Canada and the United States.

The series of texts is the basis of the Modern Business Course and Service. It should be clearly understood that the texts are not designed to cover thoroughly and in detail every point that ought to be included in a study of present-day business. They do contain a treatment of all essential principles of the growing science of business. Applications of these principles will be found in the Talks, Lectures, Problems and Service.

It is not practicable to discuss the entire Course and Service in this brief introduction. I shall confine myself to a summary review of the twelve text volumes.

While the twelve volumes might well be regarded as a unit, nevertheless each volume is complete in itself and may be read independently of the rest. The subject of "Economics" the reader will find is the keystone of the business arch. A man who does not understand the laws that govern all business can never have a thorough grasp of any single business. The subject underlies business callings just as mathematics underlies engineering vocations. The purpose of the volume on "Economics" is to bring before the reader a clear idea of the business problems which economists have sought to solve and of the principles they have for the most part agreed upon. The author, Professor James Mavor, of the University of Toronto, is a well-known economist.

The volume on "Organization and Management" is the most comprehensive text on the subject that has so far appeared. In the United States and Canada much progress is being made in the establishment of correct principles in this field. The subject is engaging the attention of progressive business men throughout the world. The reader will, therefore, undoubtedly welcome the concrete discussion of the subject by Professor Galloway.

Volume III, "Selling, Credits and Traffic," covers the three essential steps in the process of marketing goods. The original treatise on "Selling," by Professor Ralph Starr Butler, of the University of Wisconsin, has required only slight alteration for Canadian use. The treatise on "Credits," by Professor Galloway, has been revised by Dr. Swanson, of Queen's University. The treatise on "Traffic" is the work of the Hon. Simon

J. McLean, of the Board of Railway Commissioners of Canada, and is an important contribution to the literature of business.

The volume on "Business Correspondence and Advertising" has proved of particular interest to our subscribers in the United States. Business men in Canada will undoubtedly receive this volume with a similar degree of appreciation, especially as the text on Advertising has been revised by a man thoroughly familiar with Canadian advertising practice. Mr. Hotchkiss' work on Business Correspondence treats the subject in a scientific, analytical manner. The present tendency is to eliminate much of the cold, formal tone and to let more of the writer's personality enter into his business correspondence. There is much for any business man to learn from this volume.

Two volumes are devoted to Accounting. Volume V, on "Accounting Theory and Practice," elucidates the principles of the subject and gives to the reader the guidance he needs in training himself for the solution of accounting problems. The discussion of bookkeeping principles, of partnership and corporation forms and accounts, and of accounting for intangible expenditure and assets will be found of particular interest. I desire to express my sincere appreciation of the helpfulness of Mr. John I. Sutcliffe, C. A., of Toronto, and of Mr. E. W. Wright, of the Montreal bar, in making suggestions as to the revision of this volume for Canadian readers.

Volume XI also is devoted to accounting. The first part covers the important work of the auditor, stating the principles which determine completeness in audits and giving concrete illustrations of the proper method to pursue in the audit of different businesses. The im-

portant subject of costs, which is treated in the second half of the volume, cannot be studied too closely by any one even remotely interested in manufacturing—and this includes bankers, wholesalers, accountants, and many others.

Volume VI, on "Corporation Finance," is used as text in most of the universities in the United States where business courses are given. The description of sources from which corporations obtain their funds and of the methods they employ, is of decided value to any man in business, no matter what his vocation or position may be. The book is full of practical suggestions and can be understood by men who have had no previous training in finance. It has been carefully revised by Mr. Fred W. Field, Editor of *The Monetary Times,* who is one of the foremost authorities on the subject in Canada.

Volume VII, on "Money and Banking," deals with the fundamental principles underlying financial operations. Professor W. W. Swanson, of Queen's University, treats the Canadian phases of the subject.

Volume VIII, on "Banking Practice and Foreign Exchange," most of which has been written by Mr. E. K. Stewart-Patterson, of the Canadian Bank of Commerce, is the only book that shows the inner mechanism of the Canadian bank. The banking act, the branch system, methods of organization, accounting and control are all thoroughly discussed. This volume will prove helpful not only to the Canadian banker, but to any business man who has any dealings whatever with a Canadian bank.

Volume IX, on "Investment and Speculation," is designed not only for the benefit of men employed in stock and bond houses, but for all business men. Obviously, the information is especially valuable to those who have securities to dispose of. The book describes stock exchange operations and explains how to value, and how to buy and sell, securities. The Canadian phases of this subject have been written by Mr. Field.

Volume X, treating of "Insurance and Real Estate," and Volume XII, on "Commercial Law," will prove of great practical help to young men, as well as to executives who are already handling problems in these fields. Real estate is becoming more and more of a factor in the development of Canadian resources. It requires the attention of all progressive men. The text on this subject has been carefully revised by Mr. E. W. Wright, of the Montreal bar. Commercial law, obviously, enters into every business transaction. The volume on this subject by Mr. Walter S. Johnson, of the Montreal bar, is designed both to give a broad understanding of the common law and to protect business men against common, and often costly, blunders.

The editor has left every author complete liberty in the presentation of opinions and conclusions. Each author is alone responsible for the views he expresses.

Here and there topics are treated in more than one volume. Some apparent duplication is necessary in order to make each subject comprehensive. The reader is advised, however, to read both discussions of the same subject, for in one text it will be dealt with more fully than in another, where it may be referred to merely for the sake of completeness.

JOSEPH FRENCH JOHNSON.

New York University.

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PART I: PRODUCTION

CHAPTER I

INTRODUCTION

1. *Economics as a science.*—The difference between a science and a merely disconnected series of statements is that a science offers an orderly sequence of ideas. Economic science may thus be said to present an orderly sequence of ideas concerning that part of life which consists in the experience of needs and in their satisfaction considered in relation to the resources available.

The needs of mankind are not exclusively susceptible of satisfaction by material resources; but most of our fundamental needs are of this character. Those of our needs which are satisfied by other than material things cannot in general be satisfied except by the sacrifice or surrender of material resources. The first and continually recurrent need of all living beings is food—indeed, for any particular living being, a particular kind or range of kinds of food—susceptible of assimilation by the organs of the body. Other appetites emerge as the living being reaches maturity—appetites scarcely less imperious than the appetite for food. The needs of mental and moral stimulus which may be held to be peculiar to man, although they be regarded as non-material, have, especially through their bearing upon the organization of society, a very definite economic aspect. Some of the data with which economic science concerns itself are no

doubt difficult to procure; but a very large part of this data lies within us and about us, although this fact does not necessarily render the study an easy one.

2. *The social aspect.*—Economic science as it has developed in modern times lays great emphasis upon the essentially social character of the economic processes; that is, it purports to investigate in a critical manner the extent to which the operation of these processes makes for the benefit of the community as a whole. Nor is the expression "community" regarded in a narrow sense. There is included not merely the present living generations, but, although more vaguely, the permanent community whose interests are not always identical with those of a given social group at a particular moment.

The science of economics looks, moreover, at the processes which together comprise economic life as being organically related and as being conducted in relation to an organized body analogous to a household. In this large household, differing in many important respects from a typical human household, there is a certain automatic distribution of benefits as there is in any well ordered family—although not necessarily in precisely the same manner as is customary in the family. The normal manner of the distribution of these benefits is the law of the household. In Eastern Europe, for example, the law of the family respecting shares of labor and shares in the product of labor is often very precise, and any infringement of it is apt to lead to the offender being ostracized not only by the family but by the community. The law with which we are concerned is not the customary law, which is variable in different regions, but the normal manner of the production, exchange and distribution of the products when these processes are carried on collectively.

3. *Why study of economics is important.*—The purpose of the present volume is to apply current economic theories to the current methods by means of which the economic processes are conducted for the purpose of ascertaining what light these theories throw upon economic life. These theories, like other scientific theories, need not be regarded as of universal validity; but they are useful threads to hold in the hand. If we had no such thread to guide us we should be in the position of being lost in a fog.

It should be realized that a mere statement of opinion is not in the proper sense a theory. A theory, properly so called, is a logical statement of the reactions which must follow certain given assumptions. Thus, for example, if we assume that we have a certain temperature and a certain atmospheric pressure, a knowledge of the theory of the expansion of gases would enable us to predict the behavior of certain gases under the given conditions or under any other conditions which might also be assumed. Physical experiments are comparatively easy; social experiments are very difficult. It is, therefore, necessary to rely chiefly upon observation, and in drawing conclusions from observations it is necessary to make certain provisional assumptions. These assumptions can be corrected as our observations accumulate.

It is the interest alike of the student and of the man of affairs to see as far as possible into the truth of things. If we were to look only at those aspects of life which accorded with our preconceived opinions, we should gather little. Fault may be found if an erroneous view is given, but fault cannot legitimately be found on the ground that the view is critical. A critical point of view is essential to knowledge. Possession of a knowledge of the principles of economic science will not make a man a

business man; but such knowledge may be turned to invaluable account by one who has a talent for business and opportunity to exercise it.

4. *The governmental aspect.*—Apart from the view of economic science as concerned with the spontaneous activities of individual members and groups of members of the community, and with the relations of these to the welfare of the whole, there is the view concerned with the economic side of the governmental activities of the state. The government of a state is conducted by persons who have been endowed with power by the people, or by inheritance, or who have been able to seize power by force. In any case, the exercise of governmental power involves economic relations between the authority which exercises it and the people over whom it is exercised. These economic relations are partly of a compulsory character, as in taxation, and partly of a contractural character, as in the postage regulations. As the functions with which governmental authority is entrusted become more numerous, the extent and intensity of these economic relations become greater.

While the exercise of the functions of government is an art and not a science in the strict sense, the science which concerns itself with the functions of government from a comparative and critical point of view is generally known as political science. That part of political science which is concerned with the methods and course of those activities of the government in which the government controls, acquires and intromits with property belonging to the community either collectively or individually, is political economy in the strict sense.

There can be no definite division between political economy in the sense of the public economy of the state and political economy in the sense of the economy of the

community, because the reactions of the two spheres of activity are too intimate for division. For the sake of convenience, however, it is advisable to treat each of the spheres separately in order to make clear the characteristics of each. While, however, they may be separated in thought, they cannot be regarded as otherwise than inseparable in economic life.

5. *The four economic processes.*—The economic processes are customarily catalogued as follows:—Production, Exchange, Distribution and Consumption. The order in which these processes are studied is a matter of indifference; the important point to notice is that they are interacting parts of one whole. That whole is economic life. It is thus impossible to understand the phenomena of exchange without also understanding the phenomena of distribution, consumption and production.

In different parts of the world the methods vary and in different ages methods have varied; but in all places and times, all forms of economic life yield upon analysis these processes, by whatever name they may be called. In some of the forms the differentiation of the processes may be obscured. For example, in the patriarchal or undivided family, the operation of distribution, and still less that of exchange, may not be obvious; in such a case the important and obvious processes are production and consumption; the others assume a minor place.

In more highly developed industrial societies, exchange and distribution come to be regarded as of obvious importance and it is even usual in such societies to overestimate them and to underestimate the significance of production and consumption.

The main point to remember is that no matter what form economic life may assume it is a unity and that one

element cannot be affected without influencing the other elements. The economic processes appear on investigation to be involved in series of more or less complicated reactions. The study of economic science is chiefly devoted to investigation of the reactions.

6. *Economic processes depend upon certain conditions.*—It has been observed that the economic processes are concerned primarily with material things; but economic life is not composed exclusively of these because for some non-material things—the things of the mind and of the passions—material things will be exchanged. "What will not a man give in exchange for his life?" But the economic processes as they concern the things of the body or the material side of life must first engage our attention.

There are certain *indispensable conditions* to which all of the economic processes are subject. These are time and space. There are also certain *contingent conditions* without which the economic processes cannot be conducted with smoothness and regularity—these are national security and social stability. The indispensable conditions need no illustration; the desirability of the contingent conditions may be best illustrated by cases in which they are absent.

During the siege of Kars in Armenia—the Turkish fortress which maintained a protracted defense in the Russo-Turkish War of 1876-77—the villagers beneath the fortress, which was situated on a precipitous river bank, drove their cattle to the fields in the morning and drove them home at night. Russian and Turkish shells were being hurled through the air over the heads of the villagers during the course of an almost incessant bombardment for about three months. This is an example of industry without national security.

During the general political strike in Moscow in December, 1905, while a great part of the city was in the hands of revolutionists, and while customary occupations were otherwise altogether suspended, train loads of flour were allowed by the strikers to enter the city. Every morning there was a truce during which the people went through passages in the barricades to buy food. This is an example of industry while social stability was suspended. In these instances economic life was carried on, although under great disadvantage.

7. *Social stability sometimes disturbed with interior advantage.*—While social stability is a contingent condition of organized production, avoidance of disturbance of the social order at a particular moment may not be in the best interests of the community even in an economic sense. If the social order were never disturbed there might be no progress unless we were to suppose that the limits of progress had all been reached. The American Civil War is a convincing proof that the social order may be temporarily disturbed with profit in order to get rid of an institution which brings it into peril.

It is sometimes, but not invariably, possible to effect changes of an important character gradually, without disturbing the social order. In all cases, however, whether or not the event may be justified by subsequent history, violent disturbance of the social order compromises the economical processes. Such disturbance renders production difficult or impossible, it alters distribution, interferes with exchange and diminishes consumption. It may be that a national sacrifice may eventually result in benefit to the nation in an economic sense; but the sacrifice may have as an immediate economic consequence more or less serious depression and years may elapse before the economic equilibrium is re-

established. The Russo-Japanese War may ultimately have consequences beneficial to Japan, although the sacrifices it occasioned have affected the country for many years.

8. *The final purpose.*—The end for which the economic processes are conducted is the satisfaction of the needs of mankind; indeed, production may be regarded as the beginning, and consumption as the end of this satisfaction. We may, therefore, properly consider in how far any particular act or series of acts conduces to increase or to diminish the total means available for the satisfaction of human needs. In other words, we shall find ourselves constantly considering whether this or that legislative measure or this or that voluntary act is likely to conduce to the increase of what Adam Smith called "The Wealth of the Nation," or what others have called the rent, interest, wages and profits fund, or the "social or national dividend."

9. *The national dividend.*—The production of commodities by the people and their consumption must result either in the increase or in the diminution of the national wealth, or "social dividend." Consumption of social wealth in the production of objects of beauty, even though these objects are not obviously productive of an equivalent amount of wealth, may be justified on the ground of the stimulus which beautiful objects give; they make for life in the best sense. But consumption in social wealth, even in such objects, must bear a certain proportion to the total consumption of any group, otherwise the social dividend may be diminished by such consumption. The stupendous tombs of the Egyptian kings, and the immense temples erected by them to the gods of Egypt were sometimes, although not always, objects of beauty; but in certain ages the construction

of them undoubtedly diminished the national dividend and impoverished the people.

If an undue proportion of the national income is expended upon works which, though productive, are not fully productive excepting at a remote period of time, the disturbance of the economic equilibrium which this expenditure involves may cause a diminution in the "national dividend." This result must follow whether the expenditure is made by the government or by private persons. If the government exacts from a people for any purpose an amount in taxes which is sufficient to cripple their productive powers, the "national dividend" must be reduced.

10. *Private luxury.*—The question of private luxury in relation to the national dividend is a more difficult one. Excessive private luxury no doubt enervates the mind and the body and thus contributes to a diminution of production; but luxury is a relative expression and it is impossible to draw a precise line between a wholesome and desirable standard of comfort and a luxurious standard. In Western Europe and in America, white bread is regarded as a necessary of life; in Eastern Europe white bread is looked upon as the food of the luxurious classes and the masses of the people eat brown or black bread. In Great Britain and America wine is a luxury; in France and Italy it is a necessity. Salt was regarded as a luxury in 1802-03 and tea was a luxury in Europe and America until long after that date. A library, which is a necessity to a man of letters, would be a luxury to a person who could not utilize it. Even to the man of letters five thousand volumes may be necessary, while a second five thousand might be regarded as a culpable luxury.

Some people depend very little upon external stimu-

lus they have their intellectual and moral resources within them. Such people are little inclined to luxurious living; but there are others whose powers of production are dependent for their support upon constant external stimulus. Their full powers are not developed without an amount of luxury which to some others might be injurious or fatal. The most productive ages in an industrial, as well as in an artistic sense, have not been those of which asceticism was the dominant note. Sordid individualism and complete disregard of social interests and of social progress have frequently developed among ascetic groups in various races. Individuals and nations alike do well to preserve the golden mean.

CHAPTER II

PRIMARY PHASES OF PRODUCTION

11. *Detail and mass production.*—There are two aspects of production. One aspect affords a view of production in detail. By means of the expenditure of effort and skill one person or a group of persons produces something which may be used by the producer or which may be disposed of to some one else. In that sense production involves procuring from nature, or making from raw materials found in nature, some object of utility (including also beauty), or controlling in some way natural energy in the form of falling water, electricity, or the like.

The other aspect of production affords a view of the aggregate of products or of some series of products within a community or a nation. It is clear that the latter view can present itself only to the mind. We can never see the total production of any nation, nor can we easily grasp the extent of it from any statistics, even where these are available; but it is important to realize that at any particular moment, there is in being such a total of the material means of existence.

This total is subject to practically continuous alteration. Every moment some of it is withdrawn for consumption and every moment more of the same kinds of product are added. In all organized countries this stream of consumable goods, some of them carried great distances from the point of production to the point of consumption by practicably innumerable voluntary

agents, each of them remunerated for the service which he renders, is essential to the existence of the community as an organized group of people.

If the stream of consumable goods is steady, economic life goes on smoothly; if for any reason the stream is interrupted, more or less serious consequences ensue. It is obviously important for the well-being of the nation that the quantity of consumable goods should increase in at least the same proportion as the population and that these goods should be susceptible of being moved to places where effective demand for them exists. This may perhaps best be illustrated by the case of a district rather than by that of a nation. In certain provinces in Russia, details being for present purposes unimportant, there is a certain annual average yield of grain per family. This annual average yield is insufficient to provide the amount of grain which is regarded by medical experts as the minimum amount requisite for the support of an average family. It is thus necessary even in average years to send supplies of grain into the locality. Those peasant families which experience the greatest shortage of grain are obliged in years of scarcity to sell everything they have in order to buy food; some are relieved by the government or by subscriptions from the benevolent, some die of starvation and of disease induced by inferior nutrition.

A nation cannot enjoy adequate well being unless the aggregate of production is large enough to enable its population to subsist either upon the actual products of the nation or upon the products of other nations obtainable by means of exchange. Various censuses of production, notably those of Great Britain, the United States and Canada, give some idea of production from a national point of view, but no statistics do so fully.

12. *The effect on a nation as a whole.*—In estimating the effects of systems of production it is necessary to take into account as an important element their effects upon the national aggregate product. Thus it is not a matter of indifference to a country that its agricultural or its forestry methods are such as to produce less than might be produced by other methods; or that mining is carried on so unskillfully that great quantities of minerals which might be utilized are wasted; or that factory industry is less efficient than it might be; or that large numbers of people within the nation are less productive than they might be. It is also, as we shall see, a matter of extreme importance to a nation that the various wants of its people should be supplied and therefore that due proportions should be preserved among the various consumable commodities destined for the satisfaction of these wants—in short, that there should be no overproduction of some, and underproduction of other, commodities equally necessary for the maintenance of life and for the continuance of the economic processes.

13. *Simple form of production.*—Production may be regarded as presenting two forms—*simple* and *complex*. In both of these forms the end of production is the bringing into existence of something which is intended by the producer for some use or for several uses.

The simplest form of production is that of manufacture in the strict sense; that is, doing something with the hands. A peasant child known to the writer, desiring a vessel to drink out of, went to a place where there was a deposit of clay, took up a handful, moistened it, moulded it with the fingers and in a few moments produced a rough cup which was quickly dried by the sun. The cup was very crude but it was made quickly by man-

ual labor and it served its purpose—in other words, it was an object of utility.

Much of the pottery of primitive people was and is produced in this manner. The earliest lamps of the Mediterranean peoples appear to have been made by taking a piece of clay, shaping it into a round shallow bowl with inward curving lip and then pinching one part of the lip between the finger and thumb in such a way as to provide a place for the wick to lie in. So also the pottery making Indians of New Mexico formed clay into rope-like lengths and then wound it into the shape of a bowl or vase without the use of any implements other than the fingers. The inner bark of certain trees is used by the Deué of Great Slave Lake in Northern Canada for the purpose of making cord which is knotted by the fingers into fishing nets.

14. *Raw material.*—Since simple production is very generally practised by nomads, settlement and occupation of land is in the strict sense not a requisite of simple production. The only requisites are raw material and labor force (the latter involving skill in its application). The raw material may be hard to procure either because of its scarcity in a given region or in nature generally, or because of the appropriation of it by the community as a whole or by individuals who hold it by force or by consent of the community—that is to say, by conquest or robbery or by common or statute law. Timber is so scarce in extreme northern regions, that the Eskimos of Greenland do not permit its private appropriation in excess of actual requirements by individual persons, whether Eskimos or strangers. Under the Canadian homestead law, a settler is entitled to cut a certain amount of timber from the public lands; and under various acts of the provinces of Canada and the States of the Union,

timber limits are granted, leased or sold and permits to cut timber are given on certain conditions. Access to minerals and licenses to fish and hunt are similarly provided in organized societies. Unrestricted access to the means of production exists only where the social organization is too weak to impose restrictions.

15. *Labor.*—Even in the simplest methods of production, both labor force considered as muscular energy and the skill with which it is applied to the raw material vary with sex, age, aptitude and practice. A makeshift may be accomplished in general by any one; but skill in the high sense is rare. An examination of flint implements in a museum will afford evidence of very great difference in skill on the part of the primitive flint makers. Some implements are clumsy in form and irregular in flaking, in others the flaking is done with consummate skill and the form is perfect. The same is true of primitive pottery. High skill cannot be attained or maintained without continuous exercise, and, therefore, the primitive craftsman who possesses it generally specializes upon some manufacture in which he has become proficient. An expert arrowmaker will make flint arrows for his tribe and he may do little else.

Division of labor thus makes its appearance in a very early phase of human society—men and boys performing those functions for which they show themselves to be best fitted and women performing other functions. All, however, perform certain functions in common, although with different powers, and the specially expert devote themselves to the functions for which they have shown themselves to be better fitted than others. The essential feature of the simple method of production is the directness and immediacy with which an article is produced because it satisfies an immediate want. The

need incites the craftsman to produce and he does so as soon as he can obtain the raw material or, aware as he is of the future occurrence of a need, he picks up a piece of material which he finds by accident, with the intention of one day fashioning it into some object which will satisfy a probable need of the future.

16. *Complex production.*—In the simplest form of complex production, the product of an operation of simple production is utilized as an instrument in a further productive process. It is obvious that not all simple products are susceptible of being so utilized. Some are made for special uses, as in the case of the cup, for example. Others are made for ornament or for food; but many are made for the express purpose of facilitating the manufacture of other useful things. It is true that in many cases such things might be made by means of simple production, but they are more easily or more effectively made by means of some instrument. The fact that this instrument has first to be made causes the first total process to be indirect and therefore slow; but subsequent processes are effected more rapidly than would be the case if the simple production process were applied on each occasion. Thus, for example, if a primitive potter, instead of fashioning a cup with his hands, makes a potter's wheel—a very simple apparatus—places the clay in the center of it, sets the wheel spinning and then by the dexterous use of his hands gives the clay a round form or such an outline as he may design, he employs complex production. He has used the product of one operation—his wheel—to accomplish another operation, the production of a vessel. He occupies time in making his wheel during which he might have made many cups; but his power to produce cups in numbers per unit of time is for the future greatly increased and, moreover, he

can by means of his wheel produce more uniform cups than he could without it.

17. *Supplementary requisites.*—In complex production, at least one new requisite makes its appearance. This requisite is the instrument or tool by means of which the operation is performed in addition to the raw material upon which it is performed. Many such tools are made and used by nomadic people; but there are many more which can only be made and used by people who have definite permanent settlements. When the instruments which they make are of such a character, a further requisite makes its appearance—this requisite is the occupation of land. The land may itself be used as an instrument, as in agriculture, forestry, horticulture, etc.; it may be used to extract raw materials from, as in mining; or it may be used as the site of instruments, as in the case of land occupied by factories and the like.

When an instrument is localized, it is necessary that the raw material upon which it works should be more or less easily accessible or should be more or less easily transported. Thus transportation is an indispensable incident in all complex production.

Moreover, instruments or tools are used for the manufacture of other instruments and so on until in the highly organized economic life of modern communities the tracing of origins through multifarious and complicated processes to remote simple products becomes an impossible task. It is difficult even to trace the origin of a design executed in various more or less refractory materials to a primitive design executed by hand in some plastic medium.

18. *Who owns the finished product?*—The product of a complex productive operation may be the work of one person who has found the raw material for the in-

strument, made the instrument, found the raw material for the final product and eventually produced the final product. In such a case, as in a similar instance of simple production, there could arise no question of the ownership of the finished product; at all events, in any community where such a product was regarded as rightfully subject to private ownership. Even among people who in general regard food as the common property of the tribe, private ownership of weapons is usually recognized.

Cases of individual manufacture of things which are the result of complicated processes are not uncommon. In Central India, for example, some of the workers in iron find the deposits of native iron in the mountains, burn charcoal, refine the metal and make out of it tools customarily used in the villages.

The processes of complex production are, however, usually carried on by joint or successive labors. A group of Russian peasants was visited by the writer immediately after they had settled in a region previously unoccupied. Upon their arrival the first thing they did was to hunt for clay. When they found it, they made rough bricks, dried them in the sun and on the second day after their arrival, they built ovens in which the women baked bread for the group. Meanwhile some of the men were cutting down trees and building large temporary houses each to contain several families. In such a case joint labor, and joint use of the instruments and joint enjoyment of the product were clearly expedient.

19. *Primitive causes of disputes.*—When joint or successive labors are exercised upon a series of productive processes of a complex character, the same questions arise as may arise even where the productive method is simple.

The use and the ownership may be disputed and claims may be advanced on the part of some contributors to the production, which are not admitted by the others. Where the labors of each and of all are necessary, it is not easy to settle such claims on any principle of ideal justice—an equal division might be as manifestly unjust as an unequal division which might lead to the ownership by one or two and the practical exclusion from use or ownership of the joint product on the part of the others. Here again custom and sometimes customary or statute law intervene to afford some basis upon which the dispute may be settled. Usually such disputes are settled by means of a compromise—ideal justice being unobtainable.

The germ of disputes about distribution is thus to be found in the process of production. As this process becomes more and more complicated and as the contributors to the productive process become more numerous, and as their functions become more varied, it becomes more and more difficult to assign the share of each in the product of a common activity. Only one conclusion is certain; if production is accomplished by several agencies, the product at the time that it is produced cannot rightly be regarded as the exclusive property of any one of these agencies.

CHAPTER III

FACTORS OF PRODUCTION

20. *Three divisions of labor.*—The indispensable conditions of production are time and space. The contingent conditions are national security and social stability. The factors or requisites of simple production are materials and labor; and, of the complex or long production process, and (including materials upon and within it), labor and instruments of capital. It has been made clear that these factors of production may be employed by one person or by many. In highly organized industry, materials may be assembled from many different regions and may be the products of numerous complex productive operations. These materials may be subjected to further processes by means of instruments similarly assembled and by the exercise of labor of a diversified character.

In all productive enterprises of a certain magnitude, labor may be regarded as being obviously divisible into three important categories: (a) directive labor exercised by the responsible chiefs of the undertaking; (b) superintending labor—that of managers, foremen and the like; and (c) manual labor. The enterprise may or may not be socially necessary; but its existence being granted, labors of all three categories are necessary to its continuance. Whatever the dimensions of the industry, the functions implied in these categories must be performed, whether by one person or by many.

Directive and superintending labor is as necessary as manual labor, entirely irrespective of the form of the organized group. This group may be organized by a single individual, by a group of partners, by a joint stock company, by a society for co-operative production, by a society for distributive production, by a municipality, or by the state. The form may affect the efficiency of the enterprise, but it does not affect the essential characteristics of its organization.

21. *Land and capital.*—The other factors are similarly necessary, whatever may be the form of the enterprise. In order that the enterprise may be continuous, the land upon which it is localized must be under the control of the directors of the enterprise, at least for a period. They must either own it or lease it. That is to say they must exercise the function of landholder. This function is actually necessary whether the land belongs to a private individual or to the state.

Similarly the instruments of production, the buildings, the machinery and equipment employed in the industry, together constitute a necessary factor which may be called fixed capital. So, also, are the liquid funds or the *circulating* capital required to accomplish the productive process for which the enterprise is organized, through the payment of wages, the purchase of raw materials and the like, until the exchange of the product in the market avails to recoup the funds depleted by these expenditures.

22. *Fixed and circulating capital.*—The provision of fixed and circulating capital is necessary irrespective of the form of the organization; but the amount required by the industry will depend upon its magnitude and upon the conditions of credit granted to the enterprise and granted by it, as well as upon the length of the pro-

ductive process in which it is engaged. In some industries the fixed capital is small in proportion to the output. In industries where hand labor is exclusively or chiefly employed or where the product is rapidly produced and immediately salable, the amount of fixed capital is sometimes extremely small. In those industries in which it is necessary to maintain large stocks of raw material, or materials in a partially manufactured state, in those industries in which the sale of the finished product is customarily slow, and especially in those industries (like ship-building) in which the process of production is long, the amount of circulating capital necessarily involved in the business is relatively great. The development of machine manufacture has increased the proportions borne by both fixed and circulating capital to the output.

23. *Sources of capital.*—In order that an enterprise may be continuous, it is necessary that the fixed and circulating capital should belong to, or alternatively should be under the control of, the organizers of the enterprise. They may obtain it from ordinary shareholders, that is, from persons who share the profits and expect to have to share the losses; from preference shareholders who give their capital permanently at a fixed rate of interest from bondholders who lend their capital for a fixed period or permanently at a fixed rate of interest; from bankers or others for short or indeterminate periods, also at a fixed rate of interest; or otherwise. The capital of large enterprises is customarily provided by all of these classes of persons and is frequently provided by people who live in countries distant from the locality where the industry is conducted. Industries in South America are extensively financed by people in the United States; industries in Mexico by people in Great Britain, the United States and Canada; industries in Russia by people in Great Britain, France and Belgium.

The exercise of the function of the capitalist is not less necessary to the conduct of an industry, irrespective of its magnitude, than is the exercise of the function of the laborer. Where the product is small the place of capital is insignificant, but it nevertheless exists.

24. *Functions in complex production.*—The functions which are necessarily exercised in complex production may be summarized thus:

1. The function of the *landholder* (individual, group or State) who controls access to land for manufacturing sites and access to the raw materials in minerals, forests and the like;

2. The function of the *capitalist* who possesses the fixed and circulating capital—the fixed capital being the actual products of previous productive operations, and the circulating capital consisting of resources for obtaining similar products and for defraying the costs of production during the productive process which the enterprise undertakes;

3. The function of the *manual laborer* who exercises his labor force;

4. The function of the *superintendent* or *foreman* who organizes the labor of groups of manual labor;

5. The function of the *employer* or *organizer* of the whole enterprise who interposes his credit and becomes responsible to landholder, capitalist, superintendents and laborers for the proper condition of the business. This person is sometimes called *entrepreneur* or undertaker.

In the simplest industrial forms these functions may all be rendered by one person; in the most complicated they may each be rendered by great numbers of persons. The various categories of labor, viz.: manual, superin-

terding, and directive or employing, cannot be rendered otherwise than by persons more or less explicitly competent to exercise their respective functions; but the functions of landholder and capitalist imply possession and do not in a sense necessarily imply personal competence. The functions may in a sense be exercised by a child, by a lunatic or by the State; but they are not truly exercised by these, but rather by the persons who, acting in a fiduciary capacity, exercise the functions in their stead.[1]

25. *Law of increasing returns.*—It is matter of common observation that an increase of labor will sometimes produce a proportionately greater result than the proportionate result produced by the previous labor. This is not true of all points upon an imaginary scale of labor and result, but it is true of all forms of effort and result up to a certain point. It is true, for example, of agricultural production. A given quantity of seed, a given quantity of manure and a given amount of labor will result in a maximum yield from a certain area of land. Less than these amounts will utilize the land to a less extent than the maximum, but a curve representing the yield would rise sharply from zero and less sharply as it approaches the maximum. The same is true of mechanical production. A machine of a certain maximum power will produce its maximum only when it is fed with fuel, oil and raw material up to the limit of its speed. A curve of its output will approximate to the curve of agricultural yield. This is the simplest form of the operation of the law of increasing returns. In a larger sense the law also acts in the expansion of industry, and its action is especially noticeable in those industries in which

[1] The relations of the factors of production to one another are more appropriately discussed under the head of Distribution.

capital is largely employed in proportion to labor. A factory which is on half-time produces less net return than one-half of its maximum because there are many elements in its expenditure which remain the same whatever the output, and there are other elements which do not increase quite so fast as the increased output.

26. *Reason for industrial combinations.*—The economic justification of industrial combinations lies in the operation of the law of increasing returns. The board of directors and the staff of superior managers of a business employing say one thousand men, and utilizing a capital of say one million dollars are, let us suppose, working at a capacity less than their maximum; a certain amount of their force or skill is going to waste. They could, without overstraining themselves and without expecting more than a slight additional remuneration, conduct a business of twice the dimensions of the one they have been conducting. Another business is absorbed and a board and managing staff are eliminated. Other things being equal, if expectations are realized the combined businesses yield more than the sum of the former yields of the separate enterprises.

Still another business is added *en bloc* and so on until a large industrial combination has been formed. The law of increasing returns would act indefinitely in all spheres, were it not for three important checks. These checks are (a) the limits of labor force and of managerial skill possessed by any men or group of men, (b) the limits which nature has imposed upon the availability of raw material and (c) the limits also imposed by nature upon the "fatigue" of land and of machinery. No doubt these limits are constantly being extended. The exercise of the function of labor becomes easier with increasing skill; the function of management on a large scale

brings into existence the organ which is appropriate for its exercise through the operation of the obscure law of variation considered in an economic sense. New sources of raw material are frequently discovered and improvements in the technique of agriculture and of mechanical industry are constantly being made; yet the various fields continue to be limited, although not always by the same limits.

27. *Conditions which must be present.*—The expressed or implied condition in all statements of the law of increasing return, viz.: that other things being equal, such and such a result will follow certain action, must be carefully kept in mind. What is increased is the physical output; the price is assumed to remain constant. In a statement of the law the prices of things might be left out of account altogether except for the fact that it is impossible to add together essentially different elements like material and labor without expressing them in a common denominator denoting value. Thus while the increase of return in respect to physical output is limited by the supply and by skill in the application of means of production, the increase of return in the sense of value is also limited by the extent of the market and the movements of prices. Indeed, an increase of product, unless demand increases also, must induce a fall in price. Thus increased effort may meet with even a diminution of value in exchange. The case is familiar enough when an exceptionally abundant harvest neutralizes through a fall in price the gain which might be expected to accrue through an additional application of capital and labor.

28. *The law of diminishing returns.*—When the law of increasing returns has reached the limit imposed by a limitation in the supply of raw material, a limitation in

the supply of labor or in the powers of the laborers, or a limitation in the supply of the special kind of skill required for expansion of the business, a point is reached which may be regarded as analogous to the "dead point" in a mechanical system. The output neither increases nor diminishes; it remains constant.

Many businesses reach that point and remain there for a long time. Efforts to fight against such a condition when it really exists must be fruitless or even harmful. If the laborer forces himself to work above his maximum power he breaks down and cannot work at all. If a machine is forced above the speed for which it was designed and constructed, it will soon become useless. If land is forced by fertilizers beyond its power of assimilation it will produce not increasing, but diminishing crops. A business having expanded to certain dimensions, if forced beyond these, the risks increase out of proportion to the profits, and if the process is continued, the business may come to irreparable ruin.

Such is the law of diminishing returns. The most conspicuous case of its operation is to be found in the exploitative industries. In coal mining, for example, a curve indicating production rises sharply from zero under the influence of the law of increasing returns; then there is a period during which the yield is constant; then the seams nearest the main workings are worked out; remoter seams are cut, and the maintenance of ventilation and underground transport of the coal increases in cost. As still more remote seams are attacked, the operations become more and more costly and difficult; new shafts have to be sunk and fresh seams have to be opened up. Eventually the mine produces less and less until abandonment becomes expedient. If the area is the sole source of supply of coal for an industrial district, the

limitation of supply caused by the gradual exhaustion of the mines will tend to check the increase of return to manufacturing enterprises, and to extend to them the influence of the law of diminishing returns.

Another conspicuous case is that of agriculture. Cultivation by means of successive doses of labor and capital results in increasing returns up to a certain point. When the point of maximum return under the new conditions of agricultural knowledge is reached, any further application of labor and capital would result in a smaller proportionate return than the previous doses. In other words, the law of diminishing returns would begin to be effective.

When we come to discuss the question of rent we shall see that the reason for the emergence of rent lies in this law. If it were possible to produce constantly increasing quantities of foodstuffs by the application of labor and capital to a small area of land, rent for land for purposes of cultivation could not arise because one piece of land would serve as well as any other. There would be no differential advantage in the cultivation of areas of varying fertility, and therefore there could be no rent. Similarly multiplication of machinery would be useless if the product of the operation of one machine could be carried to infinity.

CHAPTER IV

TRANSPORTATION A FACTOR IN PRODUCTION

29. *Transportation as an incident in production.*—In all productive operations transportation may be said to be pervasive: that is to say, that a thing cannot be said to be produced until it is taken out, and to be taken out it must be transported. In the extractive industries, transportation plays a very large part, especially in those which are concerned with heavy commodities. In logging operations, for example, the transportation of the logs from the place of the "cut" to the water is a necessary part of the work of logging. In heavy timber lands this is usually now done by machinery. In some coal mines electrical trolley lines convey the coal in cars from the "face" of the cutting to the bottom of the pit, occasionally for two to three miles. The coal is then hoisted by other mechanism to the pit head. Transportation may thus be regarded as a special branch of production in which the extractive industries and the manufacturing industries are equally concerned.

30. *Applied to manufacturing industries.*—In the interior management of factories transportation is an important matter. The arrangement of factories of modern design and equipment is such that the amount of moving about of heavy material within the factory is reduced to a minimum. Every movement costs something in labor, material and time. An ideal arrangement would provide for the entrance of the raw material at one end of the factory and the emergence of the fin-

ished product at the other; or, the factory being arranged in a circle, at the point of entrance.

In another sense, transportation is of the first importance in production because the most economical production takes place when there is easy communication both for the raw materials and for the finished product. In the case of heavy goods this is indispensable, and especially in the case of articles in the manufacture of which two or more heavy raw materials enter. In the manufacture of pig-iron, for instance, it is important that the coal and the iron ore should both be readily accessible. The Scottish iron fields were the first to be exploited by means of coal because the coal fields were in the immediate vicinity. The English coal and iron deposits are similarly close together, and the same is true of the Pennsylvania deposits. The Han Yang iron works on the Yangtse Kiang in China are situated between iron and coal fields, each five miles distant from the works.

Not less important is it that means of transportation should exist for the finished product. Docks and railway sidings provide such means for all large manufacturing concerns. At the Han Yang works above mentioned, steel rails are shipped upon ocean steamers from wharves at the works within a few yards of the mills, where the rails are rolled.

Where means of transportation do not exist, production on any considerable scale is impossible. Extensive mineral deposits are reported to exist in Ungava and in the region to the north of the Barren Lands in Northern Canada; but their exploitation must await means of transportation of supplies into the regions, and of raw materials or finished products out of them. So, also, the coal deposits which are reported to lie under

the frozen surface of the Antartic continent are valueless without the probably impossible provision of transportation.

31. *Is transportation wasteful?*—It has sometimes been thought that transportation is in its essence wasteful, and that the nearer the place of the manufacture of the finished product could be brought to the raw material, *in situ*, the better. For example, it was at one time proposed that gas works should be placed at the bottom of coal pits so that coal might be shoveled into the retorts from the "face." This project not merely neglects the human element, but neglects also the fact that either the gas must be transported to the city from the gas works at the pits, or that the city must be brought to the mines.

As a rule, transportation either of the raw materials or of finished products is necessary. The cases where the product is made and consumed on the spot are those in which, for example, the products of the garden are used in the household, and where the community is practically self-contained. Wherever the community produces a surplus of any commodity which it exchanges for some other, or which it sells in the market, the commodity must be transported. The opening up of the means of transportation is one of the indispensable incidents in the organization of economic life.

32. *Methods of transportation.*—Methods of transportation vary greatly. In Korea men carry enormous burdens upon their backs, sometimes fastened upon huge frames. In Japan a large part of urban and much of interurban transportation is effected by means of human labor in the jinrikisha, the chair and the kaluza or portable hammock. In China most of the goods which are moved by land from one place to another are moved

by the wheelbarrow. Wherever, as in all of these countries, animals are scarce and costly, human transportation is the rule.

Camels are used extensively in Northwestern China, in Transcaspia, in Egypt, in the Soudan and in the Arabian desert. Oxen are used in South Africa, India, Italy, Germany, extensively in the province of Quebec and occasionally in the Prairie provinces. Horses, mules and asses are used everywhere excepting in the south of China, where animals are rare.

In countries where there are great interior waterways, like China, Russia, Holland, Canada and the United States, a large part of the movement of goods and persons in these countries has been accomplished from the earliest times by means of small boats and rafts. Rafts may be seen in great numbers on the Danube and on the Rhine, and occasionally on the Canadian rivers. A more usual method now is for logs to be enclosed in booms in the form of a "bag" and for the mass to be towed by a steamer. Immense bags of this kind are often to be seen on the Great Lakes. Dug-out canoes may still be seen on the Dnieper, for example.

The prairie trails of modern times are similar to the early roads of all scantily peopled countries. They are not constructed in any sense and they cost nothing for maintenance because they are not maintained. The great roads of early times were military roads, although, of course, they were used for commerce. Many Roman roads are still in use in Southern Europe and in Great Britain.

The practice of merchants who transported their goods by land in Europe, until the middle of the nineteenth century, was to form large caravans composed of many carts, sometimes accompanied by an escort. The

Hudson Bay Company imitated this practice. Every year until the Canadian Pacific Railway reached Winnipeg, the company sent out from Fort Garry a brigade of some two hundred Red River Carts which carried a large part of the total annual quantity of furs to St. Paul, through which they were sent to London. At the present moment there may occasionally be seen on the Northern Canadian prairies a train of "freighters" or wagoners carrying supplies to settlements remote from railway communication. These "freighters" are generally *metis* or half-breed Indians. Prior to the invasion of the Canadian Northwest by the railway, the "freighters" carried on the whole business of transportation. The disturbance of their economic equilibrium by the railway was one of the causes of the Second Northwest Rebellion.

The improvement of the main roads throughout Europe and Great Britain towards the beginning of the railway epoch brought transportation to a high pitch of perfection. The service of the past was well organized; by means of this service it was possible for travelers to proceed at any hour and to travel day and night at the rate of from 80 to over 100 miles a day, according to the state of the roads and the character of the vehicles and the horses.

During the eighteenth century, also, canals were constructed connecting the rivers and lakes and providing for the transportation of heavy goods. The railway and the steamship, coming as they did practically together in the second quarter of the nineteenth century, revolutionized transportation in respect to time. Except in this sense, technical progress did not greatly diminish the cost, saving only when great distances had to be overcome; but they added greatly to the convenience

of traveling and rendered it less fatiguing and, in general, less dangerous.

The economic effects of the improved means of communication were due principally to the saving of time which they rendered possible. This saving of time meant an increase in the velocity of the circulation of capital, and increased velocity of the movement of capital had the same effect as an increase in its amount.

33. *Opening new markets.*—When a new transportation route enters a rural district previously unserved, except by primitive means, it opens up new markets for produce and therefore tends to increase local prices for that produce because it brings into the field new areas of demand. But a new transportation route opens up opportunities for competition by external traders with the local merchants, and thus tends to diminish the prices of goods which are subject to external competition. Merchants in small country towns have often protested against cheap weekly fares being announced by railway companies on the ground that these induced their customers to go into the larger towns to do their shopping. In some cases the railway companies have withdrawn the low fares in consequence of these representations.

In the market centers connected by a new transportation route with the rural districts through which the route passes, the prices of produce tend to diminish because of the new areas of supply which are brought into the field by means of the railway.

The gradual development of transportation systems through the steamship and the railway served by and interlocking with more primitive means of communication has resulted in a complicated network of agencies which brings the produce of the incessant labors of Chinese, Japanese and Hindu peasants to every table

in Europe and America, takes the produce from the farms in the United States and Canada to Europe and carries the manufactures of Europe all over the world.

34. *Effect on labor and capital.*—The development of transportation has considerably increased the mobility of labor as well as the mobility of capital, and has in this way reacted both upon production and distribution. It has enabled labor with the aid of capital to reach natural resources which could not otherwise have been reached, and it has given the laborer a wider market than he otherwise would have had. With improved means of communication, wages advance in rural districts, although from the same cause they decline in urban centers.

35. *Effect on land.*—So, also, improved communication tends to increase the value of rural land until the price rises to a height which checks immigration and even sometimes causes emigration. Thus the increase in the value of the land in the Austrian provinces of Galicia, Bukovina and Ruthenia, largely owing to the low railway rates on the Austrian railways, was an important cause of the emigration from these provinces to Canada which began in 1895, and which has continued more or less actively since that date.

36. *Effect on rents.*—Improved communication between urban centers and immediately surrounding suburban regions checks the advance of rents in towns, and increases rents in the suburban districts. One of the reasons for the rise of rents in the Canadian towns which has been manifest, especially since 1901, is the inferior development of radial systems of transportation as compared with the development of the street railway within the city boundaries. The growth of the street railway, which began with the horse-car in the sixties of the nineteenth century, was enormously increased by the applica-

tion, first of mechanical and afterwards of electrical power. The street railway has rendered possible the spreading out of the American city over a wide area, and has thus delayed the complete adoption of the tenement-house system with great advantage to municipal hygiene.

Among the economic effects of the development of urban transportation have been the great advance in the price of land in the centers of cities, an increase also in the outskirts within and immediately beyond the municipal boundaries, and a considerable diminution in the value of land in the intermediate areas. This last is temporary because as the population grows round the circumference and as the utilization of the central areas raises the price of land in these, the inner ring of "dead land" will be gradually encroached upon, and its value must advance. Such movements in the prices of land, however, depend not exclusively upon the improvement in transportation; this, indeed, is in all cases only a contributory cause. Other causes of the fluctuations in the value of land are discussed elsewhere. (See Part III; Chapter VII.)

CHAPTER V

FIRST STAGE IN PRODUCTION

37. *Stages in the process of production.*—The first stage of any example of production is the stage in which the raw material is obtained from nature. This stage is that of exploitation or extraction. Large groups of industries are engaged in bringing minerals out of the ground, in cutting down timber, and in agriculture. These are the chief exploitative or extractive industries.

When commodities are produced up to this point, they are then subjected to the stage of manufacture. The waste material is disposed of and the commodity, after having passed through various manufacturing processes, makes its appearance as finished goods. The stage through which they have just passed is the second or manufacturing stage.

While the goods are being produced they are in more or less frequent need of movement; raw materials are not necessarily manufactured into finished goods on the site of their extraction from nature. Raw materials and goods partially or wholly finished require to be transported from one place to another as a more or less indispensable incident of their production. Hides, for example, are transported from Argentina to the United States and Canada. In the latter countries they are tanned and afterwards sent to England for finishing when the leather is required for certain purposes. After having been finished they are imported

into the United States or Canada and are there made up into Gladstone bags and leather goods of a like character. In such a case transportation enters largely into production.

When goods are finished they must be placed upon the market, and we may regard the third stage of production as the marketing stage. This stage also involves transportation and sometimes involves as well the services of intermediaries apart from the service of those who have been actually engaged in production.

38. *Exploitation or the extractive stage of production.*—The raw materials of all products are obtained from the land, from the water or from the air, or, in other words, from nature. In the language of economic writers the expression "land" is used as synonymous with "nature." This usage arose from the circumstance that the early economists were inhabitants of countries the predominant occupation of which was agriculture, and thus land and nature were regarded as identical and the term "land" was held to include all the resources of nature. In the process of *exploitation,* the minerals, the plants (including trees), the fish, and sometimes the gases of the atmosphere, are taken from the places in which they are found in nature and moved to more or less distant places where they become the raw materials of further processes of production.

Perhaps the most important incident in what has been called the "ascent of man" is his harnessing of the forces of nature—as mechanical, chemical or electrical energy—and the exploitation of nature by means of these forces.

In all ages, knowledge, or science, has played a great part in this exploitation, and no doubt knowledge has sometimes been used for the purpose of exploiting laborers as well as materials. The movement of great masses of stone from quarries and their use in the erection of monuments or parts of buildings were probably accomplished in early ages by means of inclined planes, the stone being rocked up the inclines on large wooden cradles. Models of these cradles have been found in Egyptian tombs. The inclined plane is still used in Japan for rolling up to roofs of temples under construction the heavy timbers required.

Manual labor undoubtedly played by far the largest rôle in antique production; but the universal prevalence in ancient times of stories of magicians who performed marvels suggests that there were at least some who knew how to utilize natural forces, and who, from motives of prudence, of avarice or from a mere love of mystery, kept their knowledge for their own advantage.

39. *Agriculture an exploitative industry.*—By far the most important of the exploitative industries is agriculture. To many economical philosophers in different ages, it has indeed appeared as the only productive occupation, all other occupations being regarded as derivative. Throughout the middle ages the great central plain of Europe and a great part of Great Britain were occupied by agricultural communities. The much-disputed questions of the origin, structure and status of these communities cannot be discussed here.

As the middle ages drew to a close the cultivator in practically the whole of the region was struggling for freedom from burdensome obligations. These obligations were partly personal—that is, he was obliged to render personal service; they were partly of a police character—that is, he could not leave the land which he cultivated; and partly of a commercial character—that is, he was obliged to pay in kind or in money to his

owner or to the owner of the land a more or less definite quantity of goods or amounts in money. Under this triple obligation, medieval agriculture was conducted. The system was sometimes very oppressive; at all times it was subversive of human liberty and personality; but it was not unproductive. The peasant was inured to hard labor.

40. *Passing of compulsory cultivation.*—The transition from the obligatory phase of cultivation to a contractual or commercial phase took place in different countries at different epochs. By the end of the fourteenth century in England obligatory cultivation had practically passed away; and the class of free hired laborers had made its appearance. In France compulsory cultivation did not pass until the revolution swept it aside; in Germany it remained until the beginning, and in Russia until the middle, of the nineteenth century. Obligatory cultivation in the case of negroes remained in the Southern States until the close of the Civil War.

The system of obligatory cultivation of land had two sides. While the peasant was obliged to cultivate and was not permitted to leave the land allotted to him, the owner of a peasant could not as a rule remove him from the land. There were exceptions in practice to this rule. In Russia, for example, peasants were sometimes sold without land, although the practice was always discouraged and sometimes prohibited by the government. The owner of the peasant had also his series of obligations, not merely to his superiors and to the state but to the peasant. The performance of these obligations was not invariably enforced; but the theory was that the owner of peasants was responsible for them. If a deficient harvest occurred and his peasants were in

want, he was obliged to open his granaries to them. Sometimes the owner was obliged by law even to keep reserves of grain for such contingencies.

41. *Beginning of commercial cultivation.*—The system decayed or it was abolished in Europe as indicated above; it was succeeded by commercial land-owning and contractual or commercial cultivation. Commercial land ownership crept into being in practice, and it was afterward confirmed by statutes.

Under the obligatory system the owner of the peasant sometimes, although not always, owned the land—that is, he could sell it as perhaps he had bought it; but he sold or bought subject to the important fact that it was occupied, often inalienably, by the peasants who cultivated it. When the peasant was liberated or when he liberated himself by running or going away, as he frequently did in England in the fourteenth century, the peasant abandoned his right to occupancy. In other words, he forfeited his previously recognized right to access to the means of production and he could only recover this right by paying for it. Thus the former owner of the peasant became the owner of the land. When the peasant left the land voluntarily, perhaps to improve his position elsewhere, his claim to the land lapsed, and when he remained upon the land, owing to the prevalence of commercial ownership round about him, his claim came to be obliterated by practice and law at variance with the older customs.

In England the enclosures of common lands or lands traditionally belonging to the community added considerably to the holdings of contiguous proprietors. The common lands had, however, fallen into neglect as the character of the community altered through the economic changes which were in progress. Their en-

closure was defended on the ground that it resulted in increased production.

In Russia, under the Emancipation Acts, the peasant became the owner of a portion of the land he had previously been cultivating. After the emancipation of the peasants in Western Europe the owner of the land, now relieved at once of the burden and the privilege of joint ownership with the cultivator, could have his land cultivated by hiring his formerly obligatory but now free cultivator to cultivate it for him for fixed wages, the produce of the land after the payment of these wages belonging to the owner of the land; or he could let the land to the peasant at a fixed rent, the produce of the land, less this rent, belonging to the peasant.

The ownership of land formerly held under the conditions which have been described thus became commercialized, and land came to be regarded as a commodity to be bought and sold like any other commodity. The species of land worship which the agricultural community had developed received a rude shock from the profanity of treating land like the movable products of cultivation. Increase of the obligations of the peasants and the commercialization of land together produced the state of mind which resulted in the numerous peasant revolts in France and Russia in the eighteenth century. The view of land as common property never wholly died out in any country. From the beginning of the nineteenth century the resumption of national land ownership was advocated in Great Britain, and later, in the seventies, the late Henry George began his propaganda in California.

The characteristic economic incidents of medieval land ownership were obligatory labor and immobility on the part of the peasant. In certain phases of the

obligatory systems corresponding obligations existed on the part of the owner, who was owner of the land only because he was owner of the peasant who cultivated it. The characteristic economic incidents of the modern period of land ownership are the mobility of land and labor alike. The laborer is free to come and go if he can; land may be bought and sold, and for that reason access to it, unless it is an unoccupied wilderness, must be paid for by the intending occupant. Even if the land were nationalized, the individual cultivator might be denied access to it unless he were prepared to surrender to the community some portion of the product of his labor.

42. *Tribal land ownership.*—Probably antecedent to both the medieval and the modern systems of land ownership there was the tribal organization under which the land was held by the tribal chiefs as trustees for the tribe. They may have had their own inherited or acquired property, but the tribal domain did not belong to the chiefs; it belonged to the tribe as a whole. The tribal chief controlled the disposition of the land of the tribe or clan only in so far as he controlled the clansmen. When the tribal relations decayed, as they did in Europe generally after the close of the middle ages, the ownership of tribal land became commercialized in the same manner as the ownership of land which had not been tribal. This process of commercialization went on gradually in those regions (as in the highlands of Scotland and in Ireland), where there remained survivals or memories of tribal organization. As the tribal relations decayed the chief of the clan acquired control of the land, and, the former tribal obligations having ceased, the ownership of land became commercialized.

43. *Objection to commercial land ownership.*—The

above is a rough sketch of the origin of modern land ownership. It explains the hostility toward landlordism of those races over which tradition has a strong hold. To the Irish peasant and the Highland clansman, the purchase and sale of land is a kind of infamy; and removal from their holdings because they did not pay rent was a gross injustice. But such difficulties arose almost exclusively in those areas, in which, from want of natural fertility (as in the highlands of Scotland), or inferior cultivation together with absence of fertility (as in some parts of Ireland), the land had little commercial value as agricultural land.

44. *Advantages of commercial land ownership.*—In those parts of Western Europe (including the greater part of England and of the lowlands of Scotland), where the land was of relatively high fertility and where it had been well cultivated, the agricultural peasantry found the commercialization of land-owning by no means as disadvantageous. The landowner, even if he had no means independently of his land ownership, was able to borrow upon the security with which his commercial ownership endowed him, to provide houses and to undertake improvements which the cultivator could not undertake through lack of agricultural capital.

The system of tenant farming thus grew gradually, and the greatly increased production which resulted, on the whole, justified the system. There was security of tenure during the period of the lease (in Scotland, generally nineteen years) and there was freedom of movement. The inferior skill of the agricultural laborer, together with the want on his part of agricultural capital, rendered it difficult for him upon a small holding to meet the competition of the large farmer, and still more difficult to meet that of the American farmer who, since the end of the eighteenth century, has been producing a surplus of wheat. The advantage lay with the large farmer who employed numerous laborers and had sufficient agricultural capital to obtain good stock, and with the large landowner, who had credit or means sufficient to provide the tenant farmer with suitable buildings, to effect permanent improvements upon the land in the form of drainage, etc. The best results, on the whole, appeared to be derived from farms of considerable size; and thus the tenant farmers in Great Britain became an important and generally well-to-do class, while the former class of cultivators of small lots either rose into the position of tenant farmers or sank into the position of free agricultural laborers.

45. *Decline of the European small farmer.*—When in the latter part of the eighteenth century the factory industry began, it drew its recruits largely from the latter class because of the superior wages offered, while during the same period the increasing production of grain both in Europe and in America led to diminished profits from the farming industry and, therefore, to diminished employment of agricultural laborers. In the beginning of the nineteenth century there was a short period during which the price of wheat advanced greatly in England, owing to the Napoleonic wars; the farmers prospered, profits were high and rents rose. Peace changed all that and prices fell sharply, and about 1820 the agricultural laborer was forced into the industrial towns.

Meanwhile the contemporary land system of the United States, while different from that of Europe, was no more favorable to the cultivator than the European systems; yet the demand for agricultural labor

in America became urgent. High wages were offered and immigration began to draw off agricultural laborers from Europe. The alteration in the land system and the offer of free homesteads in the United States greatly increased the attraction to emigrants, and the opening up of the wheat fields of the West was the result.

46. *Return of the small cultivator.*—The growth of these wheat fields meant, however, the decay of Western European agriculture for a time. The attempt to grow wheat upon land which required constant enrichment in competition with wheat grown upon land which required no enrichment at all, was successful in so far as the yield per acre of the former greatly exceeded the yield of the latter; but the wide area of the new land brought into cultivation and the aggregate production in spite of the inferior yield per acre drove the large farmer in England, for the most part and for the time, out of wheat growing into sheep grazing and cattle breeding, and the small farmer into dairying and market gardening.

This condition brought the day of the small cultivator round again; because animals in settled countries must in the main be stall fed, and stall feeding involves labor and attention. The growth of the urban centers led to great increase in the demand for fruit and vegetables, the cultivation of which came within the means of the small farmer. Indeed, such cultivation appeared to be especially adapted to his case.

Small holdings thus become economically advantageous. During recent years they have been advocated on the ground that they afford a means of preventing or mitigating the migration of agricultural laborers to the towns.

47. *Land holding for social and political distinction.*—Notwithstanding the profound change in the tenure of the land involved in the movements which have been described, there remained as a survival of earlier conditions a certain distinction of a social and political character, which attached to the holding of land. This consideration gave land possession, in the eyes of those who enjoyed it or desired to enjoy it, a pecuniary value apart from the income which was derived from the rents paid by the tenant farmers or from the profits of cultivation by the owners through the employment of agricultural laborers.

The income from land in proportion to the amount at which the land was valued was thus, as a rule, much less than the normal income from capital otherwise employed.

Many of the great estates were maintained not by rents derived from them, but from investments in urban property or from other sources. The social and political consideration attached to land ownership together with the law of primogeniture and the law of entail led in Great Britain to the accumulation of large estates, and thus to a quasi-monopoly of land ownership.

Successive reforms of Parliament since 1832 have gradually diminished the political consideration attached to land ownership, and the social consideration has in a large measure decayed in consequence. A further stage in the commercialization of land ownership has been the result. Property in land has become more mobile, and many of the great estates have been broken up. The price of land has thus fallen in England, owing to the abundance of the supply and the diminution of demand due to the practical elimination of that portion of the demand arising from the desire for social and political

distinction which had been traditionally attached to the ownership of land.

48. *Land ownership on European continent.*—The course of land ownership on the continent of Europe has been affected by a somewhat similar course of political change. The destruction of the aristocracy in France during the Revolutionary period and the subsequent democratization of that country commercialized land-owning, and the fertility of the country led to the development of intensive agriculture in small holdings. The growth of the population and the attachment of the people to agricultural occupations led to the splitting up of these holdings into minute fractions. This extreme sub-division of land has been the principal cause of the decline of the birth-rate in France and of the ulterior effects which this decline has produced.

While a great part of the soil of France is under peasant ownership, *metayer* tenancies are common in the south. Under these tenancies the cultivator does not own the soil, but receives it on loan from the proprietor, together with agricultural implements and stock, on the condition that he transfer to the proprietor one-half of the produce. These tenancies also exist in Russia, where the portion of produce retained by the cultivator varies with the renting contract. They are also becoming common in the United States, and they are to be found occasionally in Canada. They are practically unknown in Great Britain.

While large estates continue to exist in Germany, the management of these has been greatly improved of late years. Scientific agriculture has been adopted with success, and nowhere has the art of forestry been carried so far. In Austria the technique of agriculture has not attained by any means so high a degree. The increase

of rents in that country has been due rather to increase in population and to improved transportation than to improved agricultural methods. In the eastern provinces of Austria the rise of rent has been checked by emigration to Canada and to the United States.

In Russia rents have also risen, partly from pressure of population and partly from deficiency of agricultural technique and of agricultural capital on the part of the peasantry. The rise in rents has induced the large proprietors to cultivate their land by means of the application of scientific methods and the employment of directed agricultural labor.

49. *Cultivation of wheat.*—Wheat contributes so large a proportion of the food of mankind that its production has assumed increasing importance with the increase of population. The range of the growth of wheat is practically co-extensive with the temperate zones both north and south of the equator. It is an imported plant in America, but it has shown a remarkable susceptibility to adaptation in both of the American continents. The chief wheat-producing countries in Europe are Russia, Spain, Germany, Italy, France, Great Britain and Roumania. In average years Europe produces in the aggregate very much more wheat than is at present produced by the United States and Canada taken together. In Asia, India, China and Manchuria are wheat-producing countries; in Africa, Egypt; and in South America the Argentine; Australia also produces a surplus over the requirements of its population.

50. *In Europe and South America.*—In Great Britain and in Germany skillful breeding and cultivation of wheat have resulted in the increase of the yield to such an extent that although the area devoted to wheat production is much less than formerly, and although im-

migration and emigration have made heavy drafts upon the rural population in both countries, the production of wheat is great enough to supply a considerable part of the quantity required for consumption.

The production of wheat in Russia has been forced by the monetary, fiscal and railway policy of the Government. By means of differential railway rates upon wheat for export, and a high tariff against imported goods, the cultivation of wheat has been stimulated, the paper ruble has been rehabilitated and a great stock of gold has been accumulated.

The production of wheat on large estates, by means chiefly of Italian immigrant laborers, has been an important factor in the development of the Argentine Republic. At one time it was anticipated that constantly increasing quantities of wheat would be produced in that country, but the comparatively restricted areas suitable for wheat cultivation and the uncertainty of the climate appear to have checked the increase.

51. *In the United States and Canada.*—In the United States the bonanza farm has played a considerable rôle in wheat production; but the bulk of the crop is after all produced upon farms of moderate dimensions, the labor upon which is exercised for the most part by the farmer and his family. The advance in the price of land, due to the exhaustion of the free homestead areas and to the continued influx of population, has resulted especially in the Middle West in the wide extension of the practice of working land on shares or renting the land from the owner.

The dimensions of farms in Canada vary in different provinces. In the Province of Quebec the typical farm consists of a long, narrow strip extending at right angles to the bank of a river. The houses of the farmers are situated at the end of the strip on the river bank. Since the strips are narrow the farmhouses are close together. As the population has increased the strips have been divided, although, owing to the form of the original strips and to the prevalence of the practice of primogeniture, such division is not always carried far. The French Canadian youth formerly sought employment in the New England towns; now they are more extensively employed than formerly in the industrial centers in Canada. They also migrate from the St. Lawrence to northern Quebec, to Nova Scotia, and to some extent to the prairie provinces. Large numbers find employment as lumbermen in the timber limits of their own province and in the saw mills and paper mills. The agricultural technique of the Province of Quebec is not high, although efforts toward improving it by means of agricultural education are constantly being made.

The Province of Ontario has practically ceased to be important as a wheat-producing region, the competition of the western wheat fields having rendered the cultivation of wheat there relatively unprofitable. The Ontario farmers have therefore turned to mixed farming and to the cultivation of fruits and vegetables. Agricultural technique has been improved by farmers' institutes and by the formation with the aid of the Provincial Government of agricultural societies of a general and also of a special character. A large amount of agricultural capital has been invested in stock raising (horses, cattle and pigs), in dairying and in fruit growing. Bee-keeping has also become an important industry.

In the prairie provinces the practical minimum is a farm of 160 acres, or a quarter section, the area of

a homestead or free grant. There are, however, smaller farms in the neighborhood of some of the towns. To the quarter section of his homestead the farmer often adds another quarter section or even more by purchase or by homesteading in the names of members of his family who are entitled to free grants.

52. *Specialist wheat farmers.*—The ease with which wheat can be cultivated and the organization for its sale, due to the universality of the demand, have together conduced to specialist wheat production both in the United States and Canada. The chief economic effects of this specialization may be set forth thus:

The specialist wheat farmer is dependent upon the outcome of a single crop. He cannot spread his risk over a number of crop operations. In addition to the risk of the season to which all crops are more or less subject, there is the risk of insect pests. If one of these attacks his wheat, the specialist wheat farmer suffers heavy loss in the same way as a farmer who had the whole of his capital invested in cattle would suffer loss if his cattle were attacked by disease.

The specialist wheat farmer further runs the risk of unwittingly taking part in overproduction of wheat. If this takes place the price of wheat falls to an unremunerative point. The specialist wheat farmer is dependent upon the market organization for the sale of his product, upon the elevator, the railway, the steamship and the bank. If the price of wheat for any reason falls to a low point, the farmer appears merely to be working for this organization, and not for himself. The difficulties of organizing the sale of products not in universal demand are very great; but the economic consequences of an absence of diversified production are not less serious on that account.

CHAPTER VI

AGRICULTURE

53. *Immobility of agricultural capital.*—Agricultural production is less easily varied than mechanical production to meet the conditions of the market. In extensive agriculture the range of products is small and a wide market is organized for only one or two commodities, while transference of labor and capital from the production of one crop to that of another occupies at least one season. The price of oats may in one year yield a higher return per acre than wheat; but the conditions may be altered in the following season and they must be altered if every farmer sows oats instead of wheat.

In intensive agriculture the range of production is in general wider; but the specialized capital is frequently greater than in extensive farming. Fruit trees, for example, take a long time to come into full bearing and when they have done so, they cannot economically be rooted up and replaced by some other kind of fruit tree.

The manufacturer has, no doubt, also his specialized capital, but in many manufactures it is possible more or less speedily to alter the character of production in such a way as to divert capital and labor from the production of commodities which are not wanted to the production of those which are wanted.

The inability of the farmer to meet the conditions of the market as directly as the manufacturer can meet them is inherent in the nature of his business. Yet the farmer can do much. He may, for instance, procure

the kind of stock which will meet the known, and more or less permanent, wants of the market—the kinds of beef, bacon, poultry, etc., which the public demands.

The difference between success and failure may often lie in rapid adaptation of the means of production to demands intelligently anticipated.

54. *Agricultural capital and credit.*—All agricultural communities borrow. The reason for this appears to lie deep in the character of the farming business and in the character of the farmer. The farming business demands, as an inevitable incident, credit at least between the period of sowing and the period of reaping. This period may be taken as being on the average six months. It is evident that either the farmer or some one else must make advances of the seed and the labor of ploughing and sowing, and must remain under such advances until the harvest time, when the produce may be expected to enable the advances to be refunded.

But this is not all. The farmer and his family have to be maintained meanwhile. If the farmer has animals for working purposes these have to be cared for also. If he has animals for breeding purposes they have to be supported during the period of gestation. Thus, apart altogether from improvements upon his farm in respect to drainage and the like, and apart from the buildings which are necessary for the shelter of himself and his family and his stock and crops, the farmer, even if he receives the land gratuitously, must be provided with a certain amount of agricultural capital in order that he may carry on the business which forms his means of livelihood.

55. *Farming a hazardous business.*—The amount of agricultural capital which is indispensable varies in different countries, and has varied at different times. An

important cause of variation is the variable risk to which farming is subjected. It cannot be denied that farming is a hazardous business. The risk of a business depends largely upon the period of time over which the operations proper to the business are carried on in relation to the total output of the business.

In a factory, for example, the production of the goods for which it is designed may be conducted from the stage of raw material to the finished stage in one day, and, therefore (storage of raw materials and of finished goods being eliminated), it may be possible to turn over the daily advance of capital three hundred times a year. The amount at risk at any one period is only one three-hundredth part of the annual turn over. If a fire occurred in a factory which caused it to cease operations for a week, six productive days would be lost, or the fire might be serious enough to cause a total loss for a whole year.

The latter is the case of the farm. The farmer can, in the nature of his business, turn over his advances only once a year. If a storm sweeps over his fields and lays his grain so that he cannot reap it, if an insect pest destroys it, if a cattle disease should appear among his cattle, or if any like disaster should occur, he finds himself in the same position as a factory owner whose factory is thrown out of business for a whole year.

Farming must thus be classed with hazardous trades from the point of view of return. Great risks require large reserves if continuity is to be preserved. Such risks can be provided for either by the frugal accumulation of individual reserves or by insurance. The latter method involves, of course, some capital to pay the premium. It is obviously open only to those who are able to provide sufficient capital for their agricultural operations, plus

the premiums of insurance upon the various risks to which this business is subjected.

But the farmer, however good an agriculturist, is rarely a good business man. When he has a bountiful crop in one year, it is difficult to convince him that he may not have as good a crop the following year; and even if he realized that condition quite fully, the fluctuating nature of his business tends to make him careless of the future instead of more careful. There is nearly as large an element of gambling in farming as there is in mining, especially in farming which is confined to one crop. These conditions have resulted in the phenomenon which appears in all ages, under all conditions of land ownership and of ownership of capital and under all phases of serfdom and of freedom, namely, the phenomenon of agricultural indebtedness.[1]

56. *Farm loans.*—This indebtedness, while characteristic of all farming communities, is not universal within the communities. There is to be found in nearly all agricultural districts a class of farmers who are shrewd, frugal and avaricious, and sometimes another class equally shrewd and frugal but without avarice. The latter class it must be allowed is rare. They do exist, however. In the Province of Quebec, for example, the author lived for several months in the house of a habitant of this class. He had lent a considerable amount of money in small sums to his neighbors, and he had charged them only five per cent. per annum. In Ontario the other class was common, especially before the extension of branch banking into the rural districts. They exacted usurious rates of interest.

[1] On the universality of agricultural indebtedness see, *e. g.*, Sir F. A. Nicholson's "Report on Land and Agricultural Banks in the Madras Presidency," 1895.

From these classes the neighboring farmers borrow when they must, and when they can. They also borrow under similar circumstances from professional money lenders, from private bankers, from loan companies and from the regularly chartered or authorized banks. The large farmer who possesses some agricultural capital and an established position in the community has in general little difficulty in securing what money he wants for agricultural purposes, but the small farmer is in a different position. His needs are smaller than those of the large farmer, but he has little effective demand behind those needs because his resources are slender. His borrowings are therefore small, and his security or credit doubtful. Like the higher cost of anything when purchased in minute instead of in wholesale quantities, the cost of capital in small amounts is relatively high.

It does not, however, cost a large individual amount for the provision of agricultural capital so-called. Yet in many countries the provision even of this small amount is a matter of great difficulty. The smallness of the amount which it is necessary for a farmer to possess or to procure, in nearly any country, is very striking. In the northwest of Canada an European peasant accustomed to make the most of his small capital would think that he had an extremely favorable start if he had $250 to begin farming with upon his 160 acres of homestead land. He could not cultivate all his land with his capital, but he could cultivate as much as is customary for the first year of occupation. With this amount, which indeed is relatively high, the capital required under homestead conditions might be put at $1.50 per acre. The conditions vary according to the land and according to the personal requirements of the farmer.

57. *The farmer inevitably a borrower.*—The amount of capital which is indispensable must be obtained, and the farmer is thus inevitably a borrower from the beginning of his enterprise. Moreover, the farmer frequently borrows not merely money but stock and implements. For these he pays in interest a high price. Even where the implements are nominally his own, he has really employed his credit to procure them and has paid a high rate of interest for the accommodation.

In the Northwest Territories of Canada, prior to about 1890, the then small farming community was seriously handicapped by the practice of borrowing. Interest for sums of moderate amount up to two per cent. a month was not uncommon. The gradual extension of the branch banking system has eliminated the private banker either by competition or by purchase of his business by a chartered bank. Such rates are therefore unknown for "good" loans. In France, Germany and Italy usurious loans are still prevalent. Enormous rates which, however, are usually not recoverable in the courts of law are sometimes extorted from the unfortunate peasants.

58. *Evil of usurious rates.*—Where usurious rates are charged the farming community rapidly declines into a condition of debt dependency. The position of the farmer becomes little better than that of a serf to his money lender. This has been almost literally the case in Italy, where sometimes a peasant enters into a contract not only to pay a certain amount of interest in cash, but even to render one or more days of labor a week to his creditor and, in addition, to supply him with vegetables without payment. Such incidents are precisely the same as those by which the serf discharged his obligations. Partly owing to the revivification of Southern Italy through the savings of Italian emigrants to America, and partly owing to the institution of co-operative credit banks (which will be hereafter referred to), the practice of usury has been greatly diminished.

Not the least of the evils of usury is the practice (many examples of which have been exposed in the law courts) of inducing farmers to borrow in order that they may thus eventually pass into the power of the usurer. While these practices undoubtedly exist, the general effect of an usurious interest rate is to deter borrowing and to stimulate saving, if only for the purpose of keeping out of the usurer's clutches.

A contrary and highly undesirable effect appears from the provision of too great facilities for borrowing, or too great extension of credit. In consequence of the oppressiveness of usury practiced by private lenders, land banks and similar banking corporations have been established in several countries in Europe, generally by means of funds supplied partly by the state and partly by enthusiasts for social reform. The results of the increased facilities for borrowing and of the reduced rates at which money might be obtained have been an enormous increase in the number and amount of registered loans. It may be observed that under the former conditions loans were not so frequently registered, many of them being made on personal security only. There can be no doubt, however, that an extensive increase in indebtedness in the small farming communities has taken place.

59. *Speculation the result of easy borrowing facilities.*—In the northwest of Canada facilities for borrowing have enabled the farmers to become extensive land holders. The increase of immigration and the increasing value of land have induced them to mortgage their improved homesteads in order to purchase land which they

hold for speculative purposes. They have usually insufficient agricultural capital to utilize the additional areas, and they could with difficulty find the labor to do so even if they had sufficient capital.

In most cases the land is purchased from the railway companies out of their land grants, and is payable by instalments. The farmers are thus driven to save out of their yearly income an amount sufficient to meet these instalments, the currency of which is usually ten years. The optimism which is characteristic of the northwest has in many cases led the farmers to enter into obligations to meet which an uninterrupted series of highly successful years would be necessary.

60. *Farm mortgages.*—Mortgage loans upon improved land are customarily effected through loan companies and so-called trust companies, of which there are a great number, most of them having their headquarters in Montreal and Toronto. These companies in general will lend upon first mortgage upon improved land (i.e., land a certain proportion of which has been brought into cultivation and upon which farm buildings have been erected) an amount equal to about $1,000 for each quarter section of 160 acres. This rule, which is flexible according to conditions, the amount seldom exceeding $1,000, and occasionally falling short of it, applies in general to Manitoba, to the greater part of Saskatchewan and to Northern Alberta.

The usual rate upon such a loan is seven per cent. Since recovery of interest or principal by process of law, should this be necessary, is more expensive in outlying districts than in those near the centers of population, the rate is sometimes higher in these districts. In districts where crops are uncertain, owing to deficient rainfall even in normal seasons, such companies will either

not lend at all or will only lend at relatively high rates, which really include a large premium of insurance against loss through inferior harvests.

61. *Situation in Canadian Northwest.*—The comparatively abundant harvests which have been reaped in the northwest during recent years would undoubtedly have placed the western farmer in a sound position financially had he refrained from going into the business of land speculation. It is true that further immigration may enable him to sell his surplus land at a profit, but meanwhile he is rich in land and poor in money. It is true, also, that many of the mortgage investments of the lending companies have been placed at long dates, and that so long as the farmer can maintain his interest payments his mortgages need not be the cause of ruinous loss to him, providing his speculations have not been excessive, even though he may not have a continuous series of abundant crops.

The solvency of the western farmer appears, however, in general to rest upon the maintenance or upon an increase of the price of land, because the speculative demand to which the farmer has himself largely contributed has anticipated an increase in the price through demand arising from new immigrants.

The growth of the towns in the northwest has not been due exclusively to the growth of the farming regions about them, but has been due largely to the fact that so large a proportion of the immigrants have not been farmers. The demand for labor for railway construction has provided means of employment for large numbers of these town-dwelling laborers, and so also has the periodical demand which arises during harvest time. The latter demand, though not continuous, is annual. The former, however, is liable to suspension

whenever the railway companies suspend their policy of constructing branch lines. The three main lines of railway are almost completed, and further multiplication of these is unlikely for many years, but the building of branch lines may go on indefinitely. When the Canadian Pacific Railway was finished to the coast, the population which its construction attracted rapidly melted away. This phenomenon is not likely to occur to the same extent when the Grand Trunk Pacific and the Canadian Northern Railways have completed their main lines, but some disposal and redistribution or even emigration of the large population employed in their construction may be counted upon.

62. *Crops as security.*—In the Canadian Bank Act (1913) there is a provision which enables the chartered banks to lend money to farmers upon the security of their crops. This provision may only explicitly legalize a practice already previously in vogue. A bank might at any time lend a farmer or anyone else money on his personal security only, and the fact of the existence of the crop might be an important element in the determination of the bank as to whether the loan should be made or not. Yet the new provision enables the bank to take from the farmer a lien upon his crop. If this were to act as an inducement to the farmer to borrow when otherwise he might not do so, the provision might be very injurious to his interests. If the provision had the effect of enabling the bank to secure a lien upon all the movables of the farmer, although there was nothing to prevent the proceeding in the earlier acts, the mere existence of the provision might militate against the farmer's general credit. In any case, the provision does not appear to increase agricultural credit in any way—although it might in certain cases give the bank a preference over other creditors which it would not otherwise have possessed, and in that respect either diminish rather than increase the credit of the farmer, or render the bank the farmer's sole creditor.

63. *Co-operative agricultural credit.*—During recent years in the United States, provident loan associations, which are societies of mutual credit, appear to have to some extent replaced the private usurer and the pawnbroker. The rate of interest which these associations find it necessary to charge is not low. They find that the small size of the transactions involves relatively heavy costs. Whether the poor buy goods or money, and whether they buy in the open market or in subsidized semi-benevolent institutions, they have to pay more than the rich because they buy in smaller quantities.

Systems of co-operative credit have had wide advocacy and, indeed, also successful development in Europe, especially in Italy and in Germany. They have been advocated for the purpose of replacing the village usurer by a bank sustained by a co-operative lending society. The chief advocates of the system of co-operative credit banks have been Professor Schulze-Delitsch, whose humanitarian enthusiasm has been the mainspring of conservative social reform in Germany for many years, and Mr. Raffeisen, burgomaster of Flammersfeld.

The co-operative credit bank as suggested by Raffeisen is a very simple organization. The members of the society pledge their credit jointly, receive deposits and loans, and lend the money among themselves. There is no share capital and there are no dividends. The liability of each member of the group is unlimited.

The system on the whole seems to have worked well. In the form described or in other similar forms it has

been adopted in Germany, and in Italy, where usury was even more prevalent than in Germany, and it has been adopted on the strong recommendation of Sir F. Nicholson in the Province of Bengal and in the Punjab in India.

The success of the system in Germany and in Italy may be ascribed to three causes: (a) the prevalence of excessive usury in both countries; (b) the absence of banking facilities of a regular character, especially in the rural districts; and (c) the greatly increased prosperity of Germany in consequence of the development of industry, and in Italy, in consequence of the revivification of the country through the savings of Italian emigrants to America.

In India, also, the prevalence of village usury offered favorable conditions for a reorganization of credit on a commercial basis, and the minute amounts involved in the loan transactions rendered voluntary and unremunerated management indispensable. The establishment of co-operative credit among very poor peasants is unquestionably a sound and wise measure.

It is, however, questionable whether the system of co-operative credit is susceptible of wide extension in countries where the conditions are different from those of the countries in which it has been successfully established.

64. *Usury gradually vanishing.*—In the United States the competition of banks has probably almost totally eliminated usury, so far as the provision of agricultural capital is concerned; in Canada we have seen that usury existed and perhaps in remote places still exists; but it is by no means common. The facilities afforded by the chartered banks have undoubtedly on the whole rendered the business of the usurer very hard

to conduct. When the chartered banks began to open branches in the Northwest the private bankers and the well-to-do money lending farmers grumbled at the fall in the local rate of interest. They found it was impossible to make a living from money lending in competition with the banks. The banks took at once all the good accounts and left the doubtful accounts to the money lenders. The competition of the Canadian chartered banks has resulted in their establishing branches in the Northwest in every direction. Practically wherever there is an elevator there is a bank.

Moreover, in those countries in which the co-operative credit system has been found to be successful, there is no development of credit institutions such as the loan and trust companies to which reference has previously been made, nor is there such extension of trade credit as is to be found in a country like the Northwest of Canada, for example, where a farmer possessing improved land is urged to accept credit by the vendors of agricultural machinery who compete for his trade.

Co-operative credit without the organization of co-operative credit societies in any formal manner is, however, not unknown in the Northwest. Farmers who are well acquainted with one another, and who desire credit for the purchase of seed or implements, spontaneously form groups for mutual credit. They draw a promissory note for a certain amount due at a certain date, generally after the harvest, for a sum which represents the aggregate of their requirements, and each member of the group signs this document and receives his share of the proceeds. The writer has seen in the branch banks in the Northwest of Canada notes of this kind with a hundred names attached to them. If the lead-

ing members of the group are known to the manager of the local branch of a chartered bank, there is usually no difficulty in discounting the note because each of the drawers is jointly and severally liable to the extent of his means for its payment. This form of co-operative or mutual credit is very common and has greatly facilitated the establishment of many of the foreign settlements.

65. *Co-operative loan societies less necessary than formerly.*—Since 1896 the Northwest has been borrowing heavily from the East, and through the East from Europe. Further extension of credit may be necessary, and an increased number of credit institutions may be necessary also; but the professionalization of banking in the United States and Canada has rendered it less necessary. It is now much more difficult to establish small local credit societies whose powers of obtaining capital at lower rates of interest than the rate of chartered banks and loan companies must be limited. Moreover, the credit system of the country is on the whole so well organized and is subject to so effective competition that local co-operative credit associations would be likely to procure only the doubtful business, or that business which the banks and loan companies would not care to have because of the risks involved. They might thus serve some who are not now served; but the absence of the more certain and profitable accounts would probably prevent their business from being large enough to allow for the losses they might sustain by pursuing a policy of generous lending.

Moreover, the farmers all usually require advances at the same time. The provision of these funds taxes the resources of the banks, although they have access to the international money market; it is difficult to believe

that the local co-operative associations would be able, in times of stringency, when money is most in demand, to compete with the banks in procuring funds, or would be able to deal in any serious manner with a situation involving real scarcity of money. When money is wanted for the movement of the crops many millions are necessary.

66. *Marketing farm produce.*—The fundamental characteristics of marketing are the subjects of subsequent treatment under the head of Exchange; the features which should be dealt with here are those which relate to the organization of the movement of agricultural produce from the hands of the farmer to those of the consumer irrespective of the numerous changes in ownership of the produce during the period of that movement.

When the farmer has harvested his grain, he may, to begin with, set aside a certain quantity for seed and a certain quantity for the consumption of his family. Both of these quantities are in a sense fixed. The farmer will, under normal conditions, sow at least as much seed in any particular year as he sowed the preceding year, and the amount of grain required for his family and for the animals upon his farm is similarly determined by the number of these and by the character of the consumption. The surplus of grain which remains is the quantity which is available for sale. This at all events is the case under normal farming conditions.

If there is a deficient harvest there may not be any surplus for sale, if the deductions mentioned are based upon the requirements of the preceding year. Under these circumstances the farmer will probably dispose of some of his live stock in order to save grain, and per-

haps even diminish the consumption of grain in his family by substituting some other foodstuff.[1]

When a surplus accrues the farmer has to choose between selling it immediately after harvest or keeping it. In the former case, where the market is a restricted one, the farmer sells his grain at the period of the year when grain, being in abundant supply, is normally at its lowest price. In the latter case the farmer incurs the risk and cost of storage. Under the existing conditions the grain market is not restricted; it is, on the contrary, world wide, and the seasons of harvesting in different countries do not coincide. Thus the period of harvest in one country, or even in many, may not be the period of lowest price. When the farmer holds his wheat he runs the risk of obtaining a lower price, although he also has an opportunity of obtaining a higher price should the market advance.

If, however, the farmer decides to sell his wheat immediately after harvest he must take it to the railway station. In the Northwest of Canada this is sometimes a serious undertaking. The roads are often in bad condition at this period, and if the distance is considerable, twenty-five miles for instance, the farmer will need to weigh the advantages of keeping his horses at the plough, utilizing the fine days of the early fall for the purpose of ploughing, against the advantage of getting his wheat to market. He has to consider that later in the season he cannot plough, and the roads will be in good condition after the first touch of autumn frost. But if he decides to wait he must not wait too long; for after the beginning of November he will find it difficult to get his wheat out to the Great Lakes before the close of season.

[1] See remarks and illustrations in Part IV on Consumption.

67. *Establishing wheat prices.*—If, however, the farmer does decide to "team" his grain at once to the railway he has a choice of two methods of disposing of it. He may send it to local flour mills to be ground on his own account or he may consign it to agents in Winnipeg, in Duluth, in Buffalo, or in Liverpool, for sale also on his own account. Whichever method he adopts he will have to run the risk of the price at which his wheat will eventually be realized. Under the Manitoba Grain Act, the farmer can, by giving notice to the railway company, be sure that a car for his shipment will be waiting at the railway station so that his grain may be transferred directly from his own wagons to the car. The farmer may, of course, take the grain to an elevator company and sell it outright, receiving the cash for it on the spot.

So far as the price is concerned the farmer and the elevator company are on exactly equal terms for bargaining, because the price at any railway station is exactly the same as the market price at Fort William (which is the point of shipment on the Great Lakes) less a constant, which includes freight to Fort William and all elevator charges. The market price at Fort William is based in turn upon the Chicago and Liverpool prices. Advices upon the fluctuations in these markets are practically equally available to the farmer and to the elevator company.[1]

68. *Establishing grade and quality.*—There is, however, another element. The price being fixed independently of the farmer and of the elevator company by the external market, the quality or grade remains to be determined, because upon this depends the price of the

[1] Exactly the same conditions obtain in the manipulation of cotton and grain in the United States.

particular lot upon the scale fixed from day to day at Fort William, and from moment to moment on the Corn Exchange at Liverpool and in the "Wheat pit" at Chicago. It seems that from the point of view of the farmer, the elevator company always grades his wheat too low, and from the point of view of the elevator company every farmer thinks that all of his wheat is No. 1 Hard. The estimation must be a rough and ready one. The question of quality could easily be determined on a scientific basis, but there is no time for this. Even the Government inspection of wheat is of a rough and ready character, and the standards are subject to frequent change. The problem is a very difficult one. Up to the present time no real solution has been found. Disputes between the farmers and the elevator companies having become frequent, a Grain Growers' Association has been formed for the purpose of dealing with the question co-operatively, and this association has had a considerable amount of success.

69. *From elevator to market.*—If the farmer comes to terms with the elevator company respecting the grade, he receives a check upon a local bank for the amount due him—grade and market price being the only elements in the calculation—and the farmer's interest in the grain ceases. This is the normal course. If the local elevator is filled with grain, and it is impossible to get it conveyed to the central elevators at Fort William because of the scarcity of cars, the system does not work so smoothly. The elevator company may refuse to take delivery of wheat offered by the farmers. This, however, rarely happens.

The grain having passed into the hands of the elevator company, it is placed in the elevator with other grains of the same area and the identity of each particular lot is at once lost. The elevator company makes up its carloads and sends them off as rapidly as possible to Fort William, where the grain is transferred to huge elevators and then loaded on steamers which convey it across the Great Lakes to Buffalo on Lake Erie, to Montreal or to Depot Harbor. At Montreal the grain is loaded upon ocean steamers; from the lake ports it is transported by rail to Portland, Boston or Philadelphia, or by rail or canal and river to New York for shipment to Great Britain. The stream of grain begins about the beginning of September and continues until the first week in December.

70. *Financing crop movements.*—The elevator companies in the West could not possibly conduct the business upon their own capital. They must borrow from the banks. This they do upon the security of each parcel of grain as it is transferred to the railway company for transportation. In the aggregate the amount required for the movement of the crop is so great that preparations have to be made for some time beforehand. Formerly the Canadian Banks provided a portion of the funds necessary for the movement of crops in the United States; now the Canadian requirements are large enough to tax bank resources during the period from September to December.

The documents—grade certificate, bill of lading and the drafts—are forwarded together at the time the wheat is shipped, and the Canadian bank is credited in London with the amount which has been paid on its account as soon as the wheat arrives.

This complex process which, so far as the producer is concerned, is the final process, is achieved only by the co-operation of a great number of voluntary agencies—railways, steamships, banks and elevator companies—the

combined capital of these agencies being vastly in excess of the agricultural capital employed in the production of the wheat. The services which this intricate organization renders are necessary under modern conditions in order to transfer rapidly commodities from one market to another. Without some such series of agencies the farmer would be unable to dispose of his surplus wheat, and the European consumer would have to pay a much higher price for wheat locally produced. Indeed, the large industrial town would be an impossibility without the co-operation of the long series of active agents which begins with the farmer and ends with the baker.

71. *Wheat market most highly organized.*—The market for all farm produce is, however, by no means so effectively organized. The chief reason for the effectiveness in the organization of the wheat trade is the universality of the demand as well as the elasticity of it.

The saturation point or the point where there is no further increase of demand, even though the price be reduced to a low point, is high in the case of wheat. Oats and rye, on the other hand, are not so universally demanded, and their saturation point is lower. Wheat, unlike vegetables, fruit and dairy produce, does not deteriorate so long as it is kept dry. It may be kept for a long period of time. Organization on the same scale as that applied to wheat is therefore not applicable to any but a similar commodity. Attempts have been made to organize the fruit trade, especially in Canadian apples, but the difficulty of standardization and the reluctance of the growers to submit to marketing regulations, together with the perishable nature of the fruit, have rendered the organization of the market for fresh fruit very difficult. Cold storage has facilitated the organization of the market for fruit, milk, butter and some other perishable produce.

72. *Meat production as an extractive industry.*—The production of beef, bacon and mutton may be regarded as belonging to the category of the exploitative industries under the head of agriculture. The existence of immense herds of native cattle (such as the buffalo in North America), living upon the natural grasses and migrating over the plains, suggested the utilization of the unsettled plain regions by means of domestic cattle. Great herds of these were thus branded and liberated on the plains of Texas, Montana and other states, and the same method was adopted in Southern Alberta.

Every spring the whole of the cattle of a region of perhaps from 26,000 to 40,000 square miles were "rounded up"—that is, they were collected together by mounted men and the calves were branded with the brand of the cows with which they were running, the "mavericks" or orphans being sold in order to defray the expenses of the "round up." In the autumn another "round up" was organized and the cattle which were intended for sale were collected, driven to the railway stations and entrained. The stock on the more important ranges was good, and although the first investment of capital was considerable, and though in severe winters many cattle were lost, the expenses were not relatively heavy and cattle ranching was in general a profitable enterprise.

The land was sometimes leased for nominal rent (generally one cent per acre or six dollars and forty cents per square mile) from the government or was purchased outright by the ranchmen—sometimes they leased a large area and purchased a smaller area in addition. The practice of ranching resulted in a great addition

to the production; and the consumption of beef was greatly stimulated, especially in the industrial centers of England.

A certain amount of cattle ranching is still carried on; but the practice has disappeared from Southern Alberta, except in the foothills of the mountains. The ranges over which the cattle roamed at will a few years ago are now occupied, though scantily, by settlers. Settlement and ranching are mutually exclusive. The consequences of this change have been the diminution in the production of range cattle and a certain stimulus to the production of stall-fed cattle owing to the advance in the price of beef.

In the United States and in Canada the trade in bacon has been organized by the pork packers, and the export trade has been organized in the same manner as the export trade in manufactured goods. The trade in mutton which has been highly organized in New Zealand has not been effectively organized in America. Certain regions are peculiarly fitted for sheep farming, but a great part of the plains is unsuitable, partly because of the character of the grasses and partly because of the depredations of wolves. The production of mutton is thus not any more than sufficient for local consumption.

The chief points of economic interest in connection with these and other similar exploitative industries are the extent to which it is possible for producers to respond to variations of demand, and the method of organization by means of which the produce is brought to the most advantageous market. Some of these points are discussed more fully under the head of Exchange.

CHAPTER VII

MINING

73. *Gold mining.*—The extraction of minerals forms in many regions a large part of the class of exploitative industries. The mining of each mineral and the organization of its exploitation present somewhat different economic features. The extraction of the precious metals and of diamonds, for example, presents one series of economic problems and the extraction or iron and coal another series.

Gold, for instance, is very widely but very unevenly distributed in nature. Where it does occur in a recoverable state it offers very large returns; the search for it, therefore, induces large expenditures. One real mine in ten prospective mines may perhaps be regarded as not too low an estimate. The element of chance obviously enters very specially into all mining for precious metals. Prospectors will toil for months without obtaining any return whatever, and then they may suddenly discover a rich vein. This circumstance tends to divert a large amount of capital into gold mining, much of which is unproductive. For that reason a gold "fever" is rarely of benefit to a country. Capital is diverted from industries of a less attractive but more steadily remunerative character, and is expended upon mining which is fruitless more often than not.

74. *Two kinds of gold deposits.*—Gold deposits may be looked upon as consisting broadly of two kinds—one is the deposit of relatively low grade ore, the ore

being very abundant and containing gold throughout the whole body; the other is a deposit in which the ore is characterized by veins of occasional but exceeding richness. The deposits of the Rand in South Africa are of the former, those of Porcupine in Ontario are of the latter description. The first mentioned ore requires only economical treatment by mechanical or chemical means or both to yield a return more or less in excess of the cost of mining, and under skillful management may be made to yield a handsome return. Such mining requires, however, large capital expenditures in plants for the treatment of the ore and a relatively large amount of labor.

The large returns from the South African mines have been due to the discovery of means to treat the ore in such a way as to recover nearly all the gold it contains, and to the availability of a practically unlimited supply of labor at a low price. The disturbance of economical relations caused by the South African war resulted for a time in great difficulty in procuring labor. The Kaffirs, who had been working in the mines for low wages, suddenly found themselves enriched by the much higher pay which they received for their services as muleteers and otherwise during the war. They were enabled by means of their savings to buy wives to work for them, and they were therefore able to anticipate a life of ease.

Under these circumstances the mines were deserted, and they could only have been re-manned by Kaffirs by means of a system of forced labor, which public opinion in Great Britain would not have permitted. The mine owners then imported Chinese laborers, who were willing to work for the wages offered to them; but this system also had its drawbacks and objections.

The effects of the war have been passing away in consequence of the lapse of time, and the labor conditions previous to the war have been gradually resumed, with occasional interruptions.

75. *Gold mining in British Columbia.*—In British Columbia the situation of mining is in some ways not greatly dissimilar. There, also, the bulk of the ore does not seem to contain any large quantity of gold; but the quantity is sufficient to justify its recovery. The treatment of the ore requires the application of a considerable amount of capital and the employment of a considerable amount of labor. But there is no large native population to draw upon. The total population of the province is very small compared with its immense area, and the price of labor is high because labor is scarce. The immigration of Chinese and Japanese is impeded as much as possible, and the consequences are relatively high miners' wages and an unattractive field for the investment of capital. Thus, while in South Africa the Kaffirs have lent themselves to exploitation, and by that means the gold has been exploited, in British Columbia the gold has not been proportionately exploited, because there has been insufficient free hirable labor. Capital has thus been prevented from being invested in plants suitable for the British Columbia ores, and the production of gold has been less in consequence than it might otherwise have been. It would, however, be unsafe to infer that had the mines been fully and rapidly exploited by cheap labor other than merely temporary advantage to British Columbia would have resulted.[1]

76. *Silver mining.*—Silver is much more widely distributed, and, as a rule, much more easily recovered from

[1] The economic importance of gold is considered in relation to the origins of money and the theory of the causes of the fluctuations of prices. See Part II, "Exchange."

the ores in which it is contained than gold. The quantity of silver available for use at a particular moment in relation to the quantity of gold similarly available has varied greatly in historical times. Silver has, however, become gradually much more abundant. The value of silver in terms of gold, that is, the number of ounces troy of silver which may be purchased by one ounce troy of gold in the early part of the fifteenth century was about 11 to 1; during nearly a hundred years, between the end of the eighteenth century and 1873, the value remained about 15 to 1; since then the value has fallen to about 35 to 1.

77. *Decline in value of silver.*—This great change has been produced by several causes. The more important of these are the increase of production and the diminution of consumption of silver for currency purposes, and—especially between 1870 and 1886—the comparatively slender production of gold and the increasing use of that metal for currency purposes. Until the period of the Franco-Prussian War silver was the predominant currency medium of Central Europe, and until the present time it is the predominant currency medium of Mexico, China and India. It also enters largely into the currency of the United States in the form of silver certificates. A large part of the metallic currency of the world is still in silver, and fresh supplies are constantly being demanded for this purpose, but the production of silver has grown in excess of this demand, and the demand for industrial purposes has been insufficient to prevent the price from falling.

78. *Attempt to sustain the price of silver in U. S.*—In order to attempt to avoid the demoralization of silver prices, the Bland-Allison Act of 1878 was passed in the United States. That act provided for the purchase of

between $2,000,000 and $4,000,000 worth of silver at the market price each month, and its coinage into silver dollars weighing 412½ grains. These silver dollars did not, however, as such, go into circulation. The silver circulation consisted of silver certificates—between 1878 and 1886 of $10 and upwards, and between 1886 and 1890 of $1 and upwards. The Bland-Allison Act was in operation for twelve years, and during this period about 378 million silver dollars were coined. In 1890 the Sherman Act increased the purchase of silver to 4,500,000 ounces per month.

79. *Effect of silver legislation.*—The effect of this operation upon currency is observed in the discussion on monetary questions. Here we can only speak of its effect upon the supply of silver. The effect appeared to be to limit the production of silver to an amount somewhat larger than was sufficient to meet the artificial statutory demand of the United States, as well as the demand from other countries for currency purposes, and the demand from all countries for the arts.

The Sherman Act was in force for three years, about fifty million dollars a year being coined in the course of that period. By 1893 it became evident that it was beyond the power of the Government of the United States to sustain the price of silver by means of purchases, and the panic of 1893 gave the *coup de grace* to silver legislation.

A natural check to the fall in silver came, however, with the increase in the production of gold. The discovery of rich mines and the invention of economies in the reduction of silver ores have together rendered the silver market peculiarly susceptible to the influence of demand. An unexpected shipment of silver may suddenly depress the price, provided the supply it offers is

in excess of the demand of the moment. British Columbia produces a considerable amount of silver concentrates recovered from Galena or silver lead ore. Cobalt produces, on the other hand, native silver as well as silver in other forms. The cobalt ores are treated in reduction works at Thorold, Ontario; but the concentrates are sent to the United States to be refined.

80. *Mining camps tend to raise prices.*—The silver mines at Cobalt have attracted miners from all over the world, as did the gold mines of British Columbia in 1896. Towns have sprung up throughout the mining region, and consumption in these towns has increased the demand for farm and garden produce from southern Ontario, and for canned meats and fruits from the United States as well as from the province. Since supplies have frequently to be taken to regions remote from railway or even wagon transportation—have, indeed, to be "packed" in on the backs of men—the cost of transportation forms so large a part of the total cost that only the best qualities of the various commodities consumed by miners and prospectors are customarily sent to mining regions. The opening up of a mining region thus alters the character of demand, and tends to raise the prices of superior qualities of the commodities consumed by mining camps. Nearly every year "rushes" take place to newly discovered mining areas and sometimes the older camps are practically deserted.

Occasionally unusual features develop in the relations of capital and labor. Miners who believe in a mine will sometimes take bare subsistence in kind from the owners, and will take the balance of their stipulated wages in the stock of the mine either at the market price or at a price fixed by agreement between them and the owners.

81. *Copper mining.*—The existence of native copper

on the north and south shores of Lake Superior was known to the Indians in the seventeenth century, and attempts to recover the metal began during the latter part of the eighteenth. The principal copper regions are in the northern part of the State of Michigan and at Sudbury in Ontario. The Michigan mines have been enormously productive during recent years, the capital for their exploitation having been obtained through American credit largely from Europe. The labor has also been procured from Europe; large numbers of immigrants of various nationalities have gone into the copper mines. At Sudbury the capital has been supplied chiefly by English firms in the copper trade. Expert miners, chemists and managers have been sent out from England, and the mines have been developed skillfully and profitably.

82. *Nickel mining.*—At Sudbury, also, nickel is being mined in important quantities under conditions similar to those under which copper is being exploited in the same regions. A large proportion of the nickel which is used in association with steel in the manufacture of armor plates is produced at Sudbury.

83. *Iron mining.*—Iron ore was shipped from Virginia from the beginning of the seventeenth century, and in 1619 smelting works were erected near Richmond. These were, however, destroyed by the Indians in 1622. A smelting furnace was erected in 1643 at Lynn, Mass.

At this period the manufacture of iron was still a small affair in Europe. Sweden was the principal source of supply until in the beginning of the eighteenth century Peter the Great established large works by means of forced labor in the Ural Mountains. In 1722, these works produced the bulk of the iron then being manufactured.

The iron industry of Great Britain did not become important until after the middle of the eighteenth century. Colonial pig-iron was permitted to enter Great Britain free of duty in 1750, although the erection of rolling and other mills for the manufacture of iron bars and plates and of furnaces for the manufacture of steel was prohibited in the American colonies.

84. *Iron industry in U. S.*—It was not until the discovery of anthracite coal in the beginning of the nineteenth century that iron smelting on any large scale was possible in America. This event led to the discovery of new sources for the supply of ore and to the rapid development of the industry. Pittsburg became at this time the center of iron manufacture. The war of 1812-14 stimulated all manufactures in the United States because it shut off for the time the competition of British manufacturers.

Peace brought so great a "glut" of imports that many of the iron furnaces on the coast were "blown out." Pittsburg was saved by the mere fact of distance. Gradually the discovery of fresh sources of supply, both of coal and iron, and the application of capital and labor to their exploitation brought iron manufacture to a high point. After the Civil War, the requirements of the railways, which then came into existence, were too great for the American iron manufacturer at this stage of development, and great quantities of iron rails were imported from Great Britain. The results in that country were great increases in the price of iron, in its production, in the price of coal, and in the rate of wages in the iron and coal industries.

The construction of railways gave, however, an immense stimulus to iron and steel manufacture, although there were temporary checks due to the over-construction of railways which became manifest in 1873 and due to the panic of 1893. Since then the manufacture of iron and steel has developed to such prodigious proportions that, according to the report of the National Conservation Commission of 1909, the high-grade iron ores of the Lake Superior region will be exhausted by 1939, and resort must then be had to inferior or less accessible ores. Meanwhile, owing to the richness of the ores and to their ready accessibility, American iron is probably being produced more cheaply than European iron in spite of the greater cost of labor. The operations of mining are not, however, being conducted so economically in the United States as they are in Europe when the exploitation of the mineral areas is considered as a whole.

85. *More economical handling.*—It seems that since the iron ore of the Lake Superior region has fallen into the hands of large companies—the United States Steel Corporation chiefly—the exploitation of the ore is being conducted with greater economy than was the case when it was in the hands of small companies. The Mesabi Range, for instance, is mined in an efficient manner. The whole of the drift overlying the bodies of ore has been stripped, so that the operation of extracting the ore is rather quarrying than mining, and the whole of the ore can be extracted by systematic work. It is true, however, that the masses of low-grade ore are not touched. The richest ore is taken out first; later, as the price of iron advances in consequence of the exhaustion of the high-grade ore, the interior ore masses will be worked.

86. *Iron mining in Canada.*—Iron mining in Canada began also at an early date; but the difficulty of procuring labor and capital, the absence of skill on the part of some of the earlier enterprisers, and the character of the

ore, delayed the development of the industry. The smelting of bog-iron was, however, carried on successfully, although on a moderate scale, prior to the growth, within recent years, of the iron and steel industry at Sault Ste. Marie and at Sydney, Cape Breton. The establishment of these large enterprises has brought about a demand for iron ores. This demand has been satisfied until the present time, chiefly by Newfoundland and by the United States.

87. *Coal mining.*—Coal is very widely distributed over the world. The most extensive known deposits, existing at depths which enable them to be exploited in the present phase of exploitation (a phase limited partly by the cost of mining and partly by the state of technical knowledge), are to be found in Europe, in Great Britain, France, Belgium, Germany and Russia; in Asia, in China proper and in Manchuria; and in North America, in the United States and in Canada. The active exploitation of coal began about the middle of the eighteenth century; but it was not until the improvement of the steam engine by Watt in 1776 that a real impetus was given to its exploitation for industrial purposes. The application of steam power to marine propulsion, followed immediately by its application to land locomotion, led during the nineteenth century to enormous development of the coal fields.

In the United States the chief coal fields are the Eastern, which extends over a great part of the States of New York, Pennsylvania, Ohio, West Virginia and Louisiana; the middle coal field, which extends over nearly the whole of Illinois and a part of Indiana; and the Western field, which extends over a part of North Dakota and a part of Montana. There are other smaller and less productive fields. In Canada, coal is mined in

Nova Scotia, in Manitoba (to a small extent), in Alberta and in British Columbia. There is no true coal in Ontario.

88. *Coal mines subject to law of diminishing returns.*—The law of diminishing returns applies in a very special manner to coal mining. Every additional foot in a lateral cutting, and every additional foot in a vertical cutting involves not only an additional amount of labor and capital, but involves an additional expenditure of these items per foot. Thus, assuming that the first hundred feet of a mine cost to sink and equip an amount equal to $50 per foot, the second hundred feet might be estimated to cost $75 per foot, the third hundred feet $125 per foot, and so on until the increased rate per foot becomes prohibitive of further extension of the mine either laterally or vertically.

89. *Guarding against law of diminishing returns.*—The operation of this law of increasing cost—otherwise the law of diminishing returns—will depend in the earlier stages upon the methods adopted in mining. If, for example, the mine is a horizontal one driven into the side of a mountain (like the mine at Frank in Southern Alberta, and numerous other mines in mountainous regions), the subsequent operation of the mine will be facilitated by careful clearing up of *débris* from the start of the cutting; and still more by "stopping" up, where necessary, the roof of the mine. If this is not done the fall of the roof may, on occasion, block the mine and it may be necessary to recut through the fallen *débris*, which may not be coal, and which will, therefore, involve unreturnable expense in removing.

The same is true of vertical mining. The galleries at various levels must be cleared out and all coal removed in order to yield the best result. Mining in Belgium

and in Great Britain, for instance, is customarily carried on in this manner. The coal is wholly exhausted from one section of a mine before serious attempts are made to exploit any other section. The mine is indeed looked at as a whole, which has to be exploited thoroughly, part by part. When the mine has been worked until, owing to the lateral extension of its workings, new shafts become necessary for more economical management, new shafts are sunk. When the seams "dip" to such an extent that the cost of mining becomes prohibitive, the deep workings, after being exhausted so far as is possible in an economic sense, are abandoned; but they remain in such a condition that, except for accidental falls in the roofs of the galleries owing to decay of the pit props or other causes, the mine might be reopened to resume the deeper workings. This would be done if the price of coal should advance owing to scarcity or if technical improvements in mining should render this proceeding advantageous, irrespective of the momentary conditions of the market.

90. *Waste in American coal mining.*—According to the reports of the Anthracite Coal Commission and of the National Conservation Commission, coal mining in the United States is not carried on in the manner described above. The reports made public facts about the exploitation of coal which were long previously well known to those who were interested in the subject. These facts led to the conclusion that in respect to anthracite coal, about one and a half tons were wasted and that in respect to bituminous coal, about one-half ton was wasted for each ton respectively placed upon the market. This waste, it appears, was occasioned partly by the adoption of the practice of leaving columns of coal in the mine to support the roof instead of propping the roof with timbers and exhausting the coal; partly by working the richer and thicker seams in the first instance irrespective of their levels, thus leading to the caving in of mines, owing to the superincumbent coal in the thinner seams not having been worked out; and partly by the production of an undue amount of "slack" or "culm," which is too fine in grain to be marketable as it comes from the mine. This "slack" accumulates to such an extent that it has to be burned in order that it may not encumber land which might be put to other uses.

It would appear that American mining practice is crude, that the crudeness is due to disregard of the economy of material and to an extreme regard for the economy of labor, and that these conditions are due to the necessity of aiming at immediate returns.

91. *Labor in the exploitative industries.*—Labor in the exploitative or extractive industries is performed to a large extent both in the United States and Canada by comparatively recent immigrants. In agriculture in both countries, the laborer usually looks forward to the possession of a homestead in Canada or of a rented farm in the United States. There is no organization of agricultural labor in either country; but the wages of agricultural laborers are relatively high because of the ease with which a laborer, even without capital, may establish himself independently, because of the seasonal character of the occupation and because of the competition of mining and industrial employment. The attractions of the mining camps, for example, in 1896 drew not only agricultural laborers, but settled farmers from their farms. There were many abandoned farms on the western Canadian prairie in that year.

Mining both for the precious metals and for minerals is in America manned by a racial diversified population.

Experienced gold miners who have worked in the mines in Siberia, in the Rocky Mountains and elsewhere are to be found in the mining camps of Ontario, British Columbia and the Yukon. The railway construction camps, which are analogous to the mining camps because they represent a partially organized type of settlement, contain also nomadic groups—Lithuanians, Finlanders, Russians proper, Bulgarians, Swedes, Italians, Galicians and Ruthenians.

In Europe the laborers employed in the extractive industries are, in general, hereditarily so employed—agricultural laborers are the sons of agricultural laborers, as miners are the sons of miners. In Scotland, however, of late years the coal mines have been increasingly manned by Lithuanians and by laborers of other northern European races.

CHAPTER VIII

MANUFACTURING STAGE OF PRODUCTION

92. *Characteristics of complex production.*—The characteristics of manufacture by the method of simple production have already been described; the characteristics of manufacture in complex production are chiefly these: the organization of industrial enterprises involving the employment sometimes of large numbers of persons and the utilization of large amounts of capital. These enterprises, as it were, conduct the commodity through the numerous phases which come between exploitation of the raw material and the final delivery of the consumable product to the ultimate purchaser or consumer.

It is the function of the manufacturer to perform this social service and he is enabled to do it by the cooperation of the persons who render the other equally necessary services. For example, the organizing employer or manufacturer cannot within the limit of his own proper function sustain the burden of the charges upon his business without the aid of the capitalist whose capital renders possible the process of waiting until the product is so far manufactured that it can be exchanged on some terms and also renders it possible for the organizing employer to retain his product until he can exchange it at the most advantageous price.

93. *Specialization in manufacturing.*—One of the characteristics of modern industry is the specialization of function in the manufacturing industry. This specializa-

ion leads to the formation of large enterprises for the manufacture of commodities which are not final, but which are destined to enter as raw material into the manufacture of more or less final commodities. Thus the steel tubes which enter into the structure of a bicycle are manufactured by one concern, the india-rubber tires by another, and so on, the bicycle being assembled in some cases in a workshop where no single part of it is or can be made. The same is true of pianos and of many other commodities.

This distribution of manufacturing function has been accompanied by concentration in other directions, and this concentration has been due chiefly to two influences; first, the desire to diminish competition by the amalgamation of two or more competitive enterprises, and, second, the desire to reduce the cost of production by the diminution of the general expenses of management. The expectations implied in these influences cannot be said to have been fully realized in practice. Increase in magnitude of an industrial unit demands increase of skill in management, and this increase of skill is not always forthcoming. Increase in magnitude of a factory compromises the economy of interior management and often requires the complete reconstruction of the factory not because its parts are worn out, but because their relations to one another have been altered by the additions to certain parts. The gross gain must thus be subjected to deduction in respect to the increase in costs of certain elements.

94. *Localization of industries.*—The industrial cities of Europe have, as a rule, grown upon ancient sites selected on grounds of military or commercial strategy under conditions that have long passed. The importance of some of these cities (like Venice, Nuremberg and Re-

gensburg, for example) has become of small account when compared with their ancient prestige; other cities (like Hamburg, Brussels, Amsterdam, Paris, London and Edinburgh) have retained their earlier fame and have added to it the influence acquired in modern times. The localization of industry is by no means a new tendency. In the later middle age, Bruges and Ghent were celebrated for their woolen cloths, as in later times Verviers became celebrated for its fine woolen yarns, Paisley for thread, Manchester for cotton, the west of England and the south of Scotland for tweeds, Sheffield and Solingen for cutlery and Edinburgh for beer and for printing. In the United States, the worsted and cotton industries, the shoemaking industry and others have been strongly concentrated in the New England towns; Detroit has developed a great automobile industry; Pittsburg became early the seat of the iron and steel manufacture. In Canada, Montreal, Toronto, Kingston, Hamilton and Sherbrooke have become important centers of miscellaneous mechanical industries; Sherbrooke has specialized in mining machinery, Kingston in locomotives, Peterborough in electrical machinery, Montreal in bridge building and in sugar refining, Toronto and Brantford in agricultural machinery. A process analogous to the division of labor has been in progress.

95. *Factors in locating an industry.*—The choice of locality for a particular industry depends upon a variety of considerations, among which the more important are the facilities for transporting the raw material and the finished product, the facilities for obtaining a good water supply (indispensable in the case of paper mills, for instance), the facilities for obtaining power and the facilities for obtaining labor. The textile and shoemaking industries are more advantageously established in the Prov-

ince of Quebec than they can be in Ontario, because of the greater amplitude of the supply of female labor. Of slightly less importance are the cost of land, the rate of local taxation, the possibility of obtaining exemption from taxation or of obtaining a bonus from a municipality, and the like.

96. *Effect of male and female labor upon location.*—While the relative ease with which labor can be obtained in already existing centers of population constitutes a strong reason why manufactures should be drawn to these centers, sometimes there has been a disposition on the part of manufacturers to establish works in small but readily accessible places. Examples of this are the growth of a rubber industry, a piano industry and a drug industry in small towns in Ontario. This practice tends to prevent industrial activity from being confined to one or two great centers and contributes to the prosperity of the agricultural region in the neighborhood of these subordinate industrial centers.

Unless, however, industries which are complementary to one another in respect to male and female labor are established together, difficulty must be experienced in obtaining labor. Towns where men or women respectively are exclusively employed are industrial anomalies. For this reason places where textile factories, in which women are predominantly employed, are established, generally attract engineering or other similar works where men are exclusively or predominantly employed.

The municipal governments of the Canadian cities and towns have endeavored to attract industries by means of bonuses and exemption from taxation; and in the United States attempts have been made by means of differential railway rates to compensate for deficient natural advantages, and thus to equalize economic opportunities. The competitive struggle of industrial and commercial centers has sometimes been very acute.

97. *Division of labor and over-production.*—Within the factory, division of labor, which has been practiced from the remotest times, has been carried to a high degree, and automatic machinery has reduced human labor to a minimum. Division and specialization of labor have been important factors both in the amalgamation and in the localization of industry and in the economies which have resulted. Yet by means of specialization, and especially by the use of automatic machinery, over-production of particular commodities, and therefore economic loss, may very readily take place.

Some ridicule has been cast upon the idea that over-production is possible. Over-production is, nevertheless, a fact. If a machine is suddenly introduced which doubles or trebles the output of a particular commodity, there is no law of nature which provides a demand for the increased quantity. Even at a price which is ruinously below the diminished expense of production, it is clear that the whole of the increased quantity might not be demanded.

The author was being shown through a large factory in which an article of staple consumption was manufactured. He was shown with much pride a battery of six automatic machines for the purpose of making certain parts of the staple commodity—only one of these was in operation, and it was evident from the appearance of the others that they had not been in operation for some time—probably, not at all. In this case the powers of production were greatly in excess of the requirements of the industry. It would probably have been more economical to purchase the parts made by the automatic machinery from some concern which undertook to sup-

ply the whole trade than to instal in individual factories at great expense a battery of rarely used machines.

In every nation every year a certain portion of the national income—public and private incomes being taken into account—as well as the major portion of the funds borrowed within the nation or abroad, are devoted to the production of commodities whose production occupies a long time and whose utilities are yielded very gradually over a long period. Of this nature are railways, canals, docks, waterworks, hydro-electrical plants and durable machinery of all kinds, steamships, public and private buildings, roads, streets, and the like.

Out of the national income there is expended a further portion upon production which yields more or less immediately realizable utilities. Of this nature is the expenditure upon seed grain and the like; upon clothing and upon the numerous things which satisfy our daily wants. It is clear that it is a matter of the utmost social importance that a certain proportion should exist in respect to these two forms of expenditure. If a farmer were to occupy the whole of his time and his resources in building a house for himself while his fields were lying idle, he would soon involve himself in difficulties. Some portion of his time and resources might be advantageously so expended, but not the whole.

98. *Over-production of articles of future usefulness.*—Highly durable commodities yield their utilities over a long period—the fact that they do so constitutes their durability. They are, therefore, under normal conditions highly valued. Under conditions, however, in which there is immediate need of commodities for immediate consumption, the offer of remote utilities is beside the question. To offer a starving man a steamship or a railway would be at least irrelevant. If a banker were

to lend or invest more than a certain proportion of his total assets upon land or buildings, he might find himself unable to meet his engagements because of the inability to realize upon his securities. If the government of a country or if a large number of individuals do what no one individual may do with impunity in this connection—viz., spend a disproportionate amount of the resources of the country at a given moment in highly permanent utilities—no matter how advisable the expenditure may have been on many grounds of public or private policy—a crisis must eventually occur. The phenomenon is really one of over-production.

99. *Over-production of railways.*—There may not be too many miles of railways from the point of view of the traveler or the trader, but there may be too many from the point of view of the critical accountant. He realizes that the fixed charges on his line have become so heavy in consequence of its rapid expansion, that no matter how economically the line is managed and no matter how successful it may eventually become, there must be a period during which the company must default in the payment of the interest upon its bonds. During that period it may be forced into liquidation and the property of the shareholders may be sacrificed.

Over-production of railways is not an unusual phenomenon. It occurred in Great Britain between 1840 and 1848; it occurred in the United States between the close of the Civil War and 1873; it occurred in New Zealand in 1875-76; it occurred in Italy between 1875 and 1880. Such over-production of railways has always had the same result, provided the over-production has been pushed to an extreme—the result of producing a financial crisis or of contributing to a crisis of which there were as well other causes.

100. *Over-production of crops.*—There may even be over-production of wheat or of any other single crop. The price of wheat falls to a low point under such conditions, and large numbers of people who are consumers of wheat benefit from the fall in price as well as those who derive advantage from the reaction which a fall in the price of wheat produces, but the producers suffer. They may have a bountiful crop, but its exchange value may be so depreciated that they are impoverished. This phenomenon has occurred with some frequency in Eastern Europe. The difficulty of avoiding over-production of certain foodstuffs owing to the comparative inflexibility of agriculture has already been noticed.

CHAPTER IX

GETTING GOODS TO MARKET

101. *Marketing a phase of production.*—In getting goods to the market after their production has been completed, more is involved than the mere transportation of the goods. A market must be found to which the goods may be sent; in other words, goods must be introduced to the notice of intending buyers or brought within the visible supply. In the large agricultural markets of Continental Europe, market officials and policemen bustle about ordering the farmers into special places in which long lines of hay wagons, other long lines of carts with miscellaneous produce, other long lines of horses, cattle, etc., are arranged, so that buyers may pass along the lines and readily compare one with another of the same group. To the public market everyone who observes the market regulations has equal access, and in it he has a right to equal opportunity with everyone else to offer what he has for sale. In such markets it can hardly be said that there are any strategic points in the long lines of wagons and booths.

When the goods are brought into view, and a buyer appears, bargaining begins. The Greek philosophers regarded bargaining as an art standing apart from the other arts, separate from the art of agriculture, which they considered as the only productive art (i. e., the art which contributed the whole of the resources of the people) and separate also from manufacture and the fine arts. The Greeks did not regard the art of bargaining

as a productive art, but neither did they so consider manufacture and the fine arts.[1]

102. *Circulation of capital an important factor.*—It may be observed that the quantity of the net product which is available for the community as a whole is increased by rapid, and diminished by retarded, circulation of capital. If the velocity of the circulation of capital is increased, the output is greater, as it would be greater in the case of the product of a piece of machinery if the speed of the machinery were increased. If, therefore, a producer has slender powers of bringing his wares to market—if he is a poor bargainer, in short—he is slow in exchanging his wares, and he is therefore slow in producing them. During the same period of time he produces less than a more active bargainer, and he has fewer resources for further production than a more successful bargainer. The "national dividend" is in consequence poorer than it would be if both bargainers were equally active and equally successful.

The idea that the success or failure of a bargain is unimportant to the community appears to be based upon the notion that what is a good bargain for the seller must be a bad bargain for the buyer, but this is by no means the case. Even the most astute seller is not always able to secure "the maximum advantage" for himself. The maxim, "a fair exchange is no robbery," is no doubt sound, but what is a fair exchange is not always easily determined.

103. *Injurious bargaining.*—Perhaps the most important case of bargaining is the bargaining about wages. If the view be held that what the man bargains about is not merely his labor, but his life, such bargaining is

[1] The view that bargaining is unproductive is held, although the point is not elaborated, by Professor Pigon in his interesting and suggestive book "Wealth and Welfare" (p. 169).

by far the most important case. Here it may be admitted at once that the exploitation of labor—that is, the practice of securing from labor the maximum yield for the lowest wage compatible with the continuance of production by means of a succession of gradually exhausted workers—cannot be advantageous to a community either economically or otherwise. The practice may build up some vast fortunes, but so, also, may many other practices based upon the folly or the wickedness of mankind. Other cases of exploitative bargaining are to be found in the sale of adulterated goods and of fraudulently inflated stocks. Exploitative bargaining may be very injurious to the "national dividend," as, on the other hand, exchange, properly so called—that is, the exchange of equivalents—is obviously productive.

Apart from fraud, however, mere incompetence in manufacture of goods or in organization of enterprise may produce similar results. In the gold-mining "boom" of 1896-97 in British Columbia, and in the subsequent cobalt silver "boom," large sums of money were employed by farmers and small tradesmen in the purchase of stocks in mines, the greater number of which eventually turned out to be worthless, although there were not many cases even of alleged fraud. Such transactions involve the diversion of funds which might have been devoted (although not necessarily) to agricultural or other production.

104. *Advertising an element in production.*—An important element in "getting a market" in modern commerce is the practice of advertising. Early methods, such as advertising by means of the Town Crier or by means of crying or chanting in the streets in more or less musical tones, or by means of notices fixed on the doors of churches, where every person who was likely to be inter-

ested was likely to see them, have given place to the electric sign, the billboard, and the volumes of advertisements with a few pages of text which appear monthly under the covers of the popular magazines. The practice, in general, may be regarded as part of the price which society has to pay for its desire for novelty and diversity in consumption. Much of it, for this reason, results in a diminution of the national resources—that is, in waste—partly because the advertising is excessive and partly because it is advertising of useless or injurious things.

If the skillful getting of a useful commodity to market, by advertising or otherwise, results in so great an extension of the market and in the production of the commodity on so large a scale that the producer's price is diminished, and if the market price is brought down by competition, it is clear that there is an advantage to the consumer. It is true that the "national dividend" may be held to be neither increased nor diminished because the capital and labor which were exercised upon the production in question might have been otherwise equally productively employed; but on this ground it would be possible to deny any increase in the "national dividend" from any source whatever. The increased production due to the increased demand makes possible the utilization of machinery which increases the *rate* of production per man or per machine.

The laws of increasing and diminishing returns apply with very special force to competitive advertising. There is a point which can, as a rule, be determined only by experience, where no additional advertising can increase sales, where such additional advertising would be wasteful not merely from the national point of view, but also from the point of view of the individual enterprise.

105. *Wholesale and retail trade.*—Sometimes the manufacturer sells his product directly to the consumer. This practice is very general in certain trades. It is usual in the printing trades, and it is the rule in the tailoring trade, except in ready-made clothing. The practice is, however, rare in the case of the manufacturer of the partially finished goods which are used by the trades mentioned.

Paper is in general sold by the mill at which it is made to a wholesale dealer who keeps a certain quantity of different varieties and from different mills in stock. The printer finds it advantageous to buy his paper, not from the mills, because he would require to have connections with half a dozen mills, but from a wholesale paper dealer who can supply what he wants on the instant from stock. The quantity he wants may be too insignificant for the mill to supply or the mill in which it is made may be in Japan or in England or in Germany. The business of the wholesale dealer is to keep a sufficient stock to meet the demands of the trade. The function of the wholesale dealer has become indeed more and more important as production has become more miscellaneous. The exclusion of the middleman is by no means an easy task when the middleman discharges a useful function.

The retail trader also discharges a function which has enabled him to contribute importantly to the organization of economic life in modern communities. The complaint of the farmer on the remote prairie is not that there are too many stores, but that there are not enough or perhaps not any within reach. The system of retail trade has been altered, not by the elimination of the function either of the wholesale or the retail trader, but by the growth of the latter into the keeper of a depart-

ment store. While production has become more and more highly specialized and wholesale business has to some extent followed this specialization, retail trade has become universalized. The consumer desires to economize time, and therefore wishes to do all his shopping in one shop.

106. *Will the middleman be eliminated?*—The department store may not be cheaper, but it is more convenient, and where time is valuable convenience is worth paying for. There does not seem, therefore, to be any wide movement in the direction of eliminating the middleman. It has been thought that by the use of the parcel post and by the facilitation of the remittance of small sums of money, the producer and the consumer might be brought more closely together. Such measures are useful, but they cannot be said to have had any wide effect in altering the established currents of trade. For a time it was thought that the department store would absorb all retail trade; but in this case also it would appear that there is a law of diminishing return.

As the standard of comfort rises, people become more fastidious, and the specialist retail dealer who thoroughly understands his business acts, as it were, as inspector in the interest of his customers, and thus justifies his existence. When, however, as in the case of some of the cities in Poland, cited in another connection, the number of retail dealers becomes excessive, competition reduces their earnings to the margin of subsistence; or, as in the case of isolated retail dealers in places remote from urban centers, the monopoly which they exercise may cause the whole community to pay excessive prices for what they supply.

The development of distributive co-operation in the north of England and in the south of Scotland has in

some districts altered not merely the character of retail trade, but has to some extent altered the structure of society in the villages and small towns by imposing a check upon the growth and even sometimes upon the continuance of the class of the smaller merchantry. The universalization of distributive co-operation in a country would involve the elimination of this class, and would therefore drive it abroad or compel its absorption into the wage-earning class.

107. *Seasonal trades.*—While climatic conditions determine the periods during which certain industries can be carried on, means of equalizing such industries are frequently being devised. Cold storage, for example, has rendered it possible to retain certain products for an indefinite time after production, and some industries which were, prior to its adoption, necessarily strictly seasonal, have been enabled by means of it to be carried on more or less continuously.

The preparation in factories of building materials has even diminished the loss of time in open-air building operations through unfavorable weather.

Yet in all northern countries the seasons have an important influence upon many industries. The work of bricklayers and stonemasons is arrested in all northern regions for weeks or months, according to the season. Continuity of production from year to year in seasonal industries would be impossible unless the product were sufficient to enable the waiting time to be endured without loss.[1]

[1] See discussion of Unemployment, Part V; Chapter VI.

PART II: EXCHANGE

CHAPTER I

BARTER AND MONEY

108. *Barter economy.*—When goods are produced they are utilized by the producer, are given away or are exchanged for other goods or for money. Although the use of money dates back to very early ages, all races practiced exchange by barter in early times; and from time to time, even after money economy had been fully established, they have reverted to it when need arose. Payment in kind, of taxes and of rents, has survived to our own day.

In the strict sense, barter is the direct exchange of consumable goods for other consumable goods; in the strict sense, exchange occurs when consumable goods or services are rendered for money or when money is given for consumable goods or for services. In the strict sense, also, whatever may be the material which has by common consent over a small or over a wide area acquired the position of money, the particular object, whatever it may be, is by this mere fact removed from the category of consumable goods.

This fact appears to have been the essential characteristic of barbaric money. Among nomads barter is common because the range of their wants is limited and because anyone of the few commodities which they customarily acquire by barter can almost always be utilized

by them. The earlier explorations of Siberia and Central Asia, in which the explorers had to come in contact with numerous nomadic tribes, were accomplished in the following manner: When the explorers reached a point where there was the last considerable market in which Russian money was exchangeable they purchased a flock of sheep. This flock they drove before them and, as they advanced, consumed them or exchanged them for other food as they found occasion. When the flock was reduced to one-half its original numbers, it was time to return.

Where habitual relations are established and where life has little complexity, barter is more or less easily effected; but when the parties to the transaction are strangers to one another, and are unfamiliar with the wants of one another, there may arise an absence of coincidence of wants and then barter becomes impossible. This contingency often arises in the case of scientific expeditions whose members are unfamiliar with trade conditions; and who are therefore encountered by difficulties in traveling, where traders proceed with ease.

109. *Examples of primitive barter.*—So in Central Africa, before Arabian and European traders had introduced coins into the country, and in the absence of the circulation of native money (of which an account is given below), trade was conducted by means of the barter of brass rods and wire, beads, brandy, cotton cloth and a few other commodities for palm oil, gold dust, ivory and gum. In the earlier days of the Hudson Bay Company, their trade in the Hudson Bay region was largely conducted by means of barter of copper kettles, for example, for furs. At a later period the company developed a system of token currency. In Massachusetts, during the early part of the century, barter was prevalent

in the rural districts, as it still is in some of the remoter Scottish villages, where calves and pigs are customarily bartered for groceries. A barter economy can be practiced extensively only by people who live a simple life, whose surplus of production above their own requirements is slender and whose range of wants is slender also. But barter economy does not necessarily involve stability in relative values. When fish is plentiful among a community of fishermen, a quantity of fish which may be offered in exchange for a harpoon or for a skin-boat will be large, irrespective of custom; when fish are scarce and the community is famishing for want of it, weapons and boats will alike be sacrificed to procure fish or other food. Thus fluctuations in relative values antedate the use of money.

110. *The origins of money.*—Like the origins of standards of weights and measures the origins of money are lost in the remotest antiquity. Nearly every useful thing known to early man in some place or at some time has been used as money.

The essential characteristic of the commodity which is regarded as money is the universality of the demand for it within the reach of its recognition as money. It is thus universally acceptable on certain terms. The precise dividing line between barter exchange and money exchange is sometimes difficult to determine. It seems to be near the point at which particular examples of the commodity, whatever it may be, cease to be utilized for the purpose for which they were previously customarily utilized, and begin to be utilized exclusively for purposes of exchange; or when the quantities of other commodities for which the commodity in question is exchangeable come to be more or less definitely fixed by custom; and when the worth of other commodities comes to be expressed in terms of the weight, length or number of pieces of the commodity used as money. Thus, for example, among the people of the Congo, weapons of various shapes and made of various materials—iron, copper, silver, ivory and wood—were used as "current money of the merchant." Some of these weapons might have been employed for the purposes for which weapons are usually made; but very many of them could not be used for any such purposes. Their design indicates the origin of their form; but the pieces themselves could only be utilized for purposes of exchange, as indeed they were throughout the Congo region.

So, also, in China, the ancient Tartar knife came in remote antiquity to be used as money. Its form was gradually altered. It lost its point. It lost its sharpness until it became a disk with a hole in it and with a short flat projection. Eventually the projection disappeared, and there remained only a flat disk still with either a round or a square hole.

The so-called hoe-money of China is regarded as having a similar history. Originally hoes appear to have been utilized not merely for hoeing, but also for barter; then a bronze hoe smaller than the iron hoe, but of substantially the same shape, came to be used as money, the size of the hoe gradually diminished until it became only about an inch and a half long and about an inch in width. Hoe-money was extensively circulated in China for many centuries.

In the Malay Peninsula where tin occurs in the river sands, this metal was from early times used as money in square blocks of varying size and thickness, but always perfectly free from impurities. In course of time the blocks were reduced in weight by making a square hollow in the center, and then by reducing the reverse

side in such a way that the square hollow on one side showed as a square projection on the other. Within comparatively recent times this square tin currency was extensively circulated in the Straits Settlements.

Fish-hook money, canoe money and many other forms have been current in the islands of the Pacific. Wampum made from the inner whorl of the *busyon perversum*, a shell brought to the north from the Gulf of Mexico, was extensively used by the Indians of North America until it was replaced by European coins. Masses of silver of various sizes and shapes have been used in many regions for currency purposes. The *greevna*, a weight of silver varying in different places and at different times, was the current money of the Dnieper Valley from the eighth till the eleventh centuries, or perhaps both earlier and later, and the *sycee* or shoe silver is at present used as the reserve of the Hongkong and Shanghai Bank and of other banks in China.

111. *Gold and silver as money.*—The position which for many centuries gold and silver have held as widely accepted money materials is due partly to the wide recognition of their beauty, to their durability (gold oxidizes very slowly, and although silver oxidizes more rapidly, its luster can readily be recovered), to their ready divisibility, to their easily attainable uniformity, to the readiness with which they may be distinguished from other metals, to the difficulty of imitating them, and to their density, which enables them to receive and to retain minute designs similar to those which for ages had been engraved upon precious stones which possessed the same property of high density. Although gold and silver are neither of them unique in respect to any one of these characters (some of them, indeed, they possess in common with many other substances), they combine these characters in a way that no other substances do.

The nearest metal to gold and silver in wide appreciation as money is bronze; but bronze is readily oxidizable, and it is not found in nature; it requires to be manufactured. Zinc, one of the metals of which bronze is composed, is not always found in the neighborhood of copper, the other principal constituent. The remaining constituents are variable, and their presence in the bronze is not susceptible of determination excepting by analysis. Although fine bronze is a very beautiful metal, all bronze is not fine, and this variability renders it less desirable as money material than it would be could its uniformity be secured. Nevertheless, bronze has been used for centuries even for large payments in spite of its inferior character and of the inferior and variable value which it consequently possesses in relation to gold and silver. In the interior of China the writer has met Chinese merchants whose servants were carrying large quantities of bronze "cash" on strings for the purpose of making purchases. The variability of the value of the cash in relation to the Mexican dollar, which is current in the Treaty Ports, is a usual cause of loss to the peasantry in the interior, who are frequently called upon to pay exorbitant amounts in cash in payment of taxes, the value of the cash being frequently arbitrarily depreciated by the authorities for the purpose of the tax payments.

Gold and silver thus acquired in early ages a universality of acceptance which they have retained. One or other or both form either the currency or the basis of the currency of all commercial nations. Although the recognition of currency media is wider than political divisions, otherwise international exchange in the strict sense would be impossible, the opportunity of deriving some

advantage by controlling the currency seems to have suggested itself to rulers at a very early period. This opportunity seems to have presented itself through the payment of tribute which was frequently required to be delivered in specific coins.

The history of coinage cannot be detailed here, but the fact may be noticed that coins cut from flat pieces of metal with the stamp of rulers made their appearance long before the beginning of the Christian era. The Greeks applied their unrivaled skill in the plastic arts to coin design, and in this they were followed by the Romans, whose gold coins were in wide circulation throughout the Roman Empire.

112. *Money a standard of value.*—From the above description it appears that gradually, by a social-psychological process supplemented by the edicts of rulers who required that tribute should be paid in certain specified currency, such currency or "current money" came to be regarded as a standard by which the worth or value of commodities in general might be expressed. Since all commodities could be estimated in this way, the value of any one of them in relation to the others could be expressed in terms of money, which thus came to be the *common denominator of value.* Since the quantities of commodities which were demanded could not always bear the same relation to the quantities offered in supply, and since the quantity of money material which was supplied for currency purposes could not always meet the demand for it for these purposes, the terms of exchange were variable as the terms of barter would have been variable had money not been employed for purposes of exchange.

That fluctuations of value antedate money economy has already been noticed. It is at least a tenable hypothesis that the use of money, together with the use of credit, which follows, has had a steadying influence upon relative values, although proof of this hypothesis would be difficult to establish in detail. It is, however, clear that the alteration or even the abolition of the measureing rod, which is a fair description of money, would not remove inequalities, or, excepting verbal denominations, affect the measure of things.

A survey of this kind derived from archæology and from history does not, however, explain what are the grounds for the various estimates of the relative values of commodities which are expressed in money, and to a discussion of this question we shall now proceed.

CHAPTER II

UTILITY AND VALUE

113. *Value based on utility or exchangeability.*—It is important to notice *first* that the process of valuing is a mental process. It may be affected by external influences, but it takes place in the mind. It is important to notice, *second*, that the conception of value always involves a relation between the person valuing and the object valued. The relation may assume one or the other of two forms. We may think of the object as being valuable to us because we can put it to a useful purpose or because we believe we can exchange it for something which will be equally or more useful to us or for its equivalent in money. In the first case, we consider the *value in use* of the object, and in the second case, the *value in exchange* of it.

Since the *value in exchange* of all commodities depends eventually upon their usefulness to some one, although not necessarily to the temporary possessor, it may be held that the two motives for valuation are really identical from a social point of view. It is, however, convenient to regard the two motives separately and to consider that goods are estimated in respect to their *value in use* or their *utility* to us, as well as in respect to their *exchangeability*. Indeed, we habitually contrast the advantages which we derive from the possession of an object with the advantages which we may hope to derive from the possession of other objects for which we might exchange it or which we might purchase

with the money we might obtain for it. Before purchasing a thing we frequently balance in our minds the relative usefulness of the thing which is offered to us as compared with something else the advantages of which have been carried in our mind.

In the case of an important purchase by almost anyone, and in the case even of unimportant purchases by some people, the process of calculation is prolonged and complicated. The process may, however, be reduced to the following elements. We estimate the utility of things in respect to the *intensity of the pleasure* they may be expected to afford us or the amount of inconvenience which they will enable us to avoid. We estimate the utility of things also in respect to the *immediacy* or otherwise of this anticipated pleasure. Most people are willing to pay more for things which they can have for enjoyment at once than for things for which they may have to wait a long period. We also estimate things in respect to the *duration* of their utility or to the number of utilities which we expect to realize from them.

114. *Intense desire and urgent demand.*—Intense desire arising from hunger or passion leads to exceedingly urgent demand, and, therefore, where the supply is limited, to high price. Two celebrated and wealthy collectors of rare books gave separately to two different agents instructions to buy without limit as to price a particular volume of unique character which was to be exposed for sale by public auction. The bids of these two competitors rose to high figures until one of the agents began to fear the possible reproaches of his principal and stopped bidding; the book was knocked down by the auctioneer to the other agent at a price which was many times the highest price previously paid for

the same book, and was undoubtedly greater than could have been obtained for the book in the absence of two competitors wealthy enough to gratify their passion for collecting even if the cost should be excessive.

If inconvenience or pain is present or imminent, and if we are offered the means of alleviation, our desire for alleviation being thus urgent, we may be willing to surrender a large part of our total resources rather than dispense with the object which will relieve us of the inconvenience or pain. In the dry areas of Africa, Asia, America and Australia, where the region is covered with hot sand, where there is little rain, and where the subterranean waters are too deep to be readily accessible, the possession of water is a matter of life and death. Under the pressure of extreme thirst, a traveler may give up all he has for sufficient water to slake his thirst.

Irrespective of the urgency or otherwise of the desire, where the supply is abundant and access to the supply possible with minimum exertion, there is no exchange value. While boating on a lake or river of pure fresh water, thirst may readily be satisfied by a minimum of exertion.

115. *Various degrees of desire.*—Between extremely urgent demand and complete indifference because of surrounding abundance or because of lack of desire, there are numerous gradations. At one point on a scale of this kind, a thing might offer to us a degree of usefulness, practically infinite, and at another point it might offer itself in vain to a satiated palate.

Usefulness is an affair of the moment or of successive moments, and is closely related to quantity considered in reference to our desires and requirements.

Some things may be useful to us continuously or

periodically, others only occasionally but indispensably. A pair of spectacles may be of practically continuous use to us, a razor periodically and a revolver occasionally but indispensably. In each case, on occasion, the utility may be enormously in excess of average utility to us or of the utility of the particular instruments considered as one of many or considered as belonging to us at normal times.

116. *Diminishing usefulness.*—Utility is closely related to quantity. The utility of one glass of water may be set down as infinite to a person who is perishing of thirst. The utility of a second glass of water immediately after the first, as nearly, but not quite so great, the utility of the third glass not nearly so great, and so on; the utility of each successive glass diminishing until thirst is completely slaked. This is known as the *law of diminishing utility.*

If the supply is forced beyond the point of satiation, it may become embarrassing or dangerous or even fatal. The same is true of food, especially after a long fast, and indeed the same is true of all things. A folk-story of the Irish peasantry tells of a peasant who desired gold very earnestly. Presently a piece of gold dropped through a hole in the roof of his cabin, then another piece dropped, and so on until in spite of his protests the gold became a shower which eventually filled his cabin and overwhelmed him.

117. *Disutility.*—Things which are of high utility to us in quantity appropriate to our desires or requirements come to be of disutility if they are either beneath these requirements or in excess of them. In other words, utility cannot be determined or assumed apart from conditions of desire and of quantity, time and place. Thus, for the purpose of walking, only one boot

is practically useless. For swimming, one boot would be less of an encumbrance than two; although even one in such a case would be a discommodity.

118. *Quality of commodity and character of need.*—While *utility* is a characteristic of things attributed to them by the mind which looks upon them in relation to itself, to the physical and chemical properties of bodies is due the circumstance that they can satisfy our desires and can by this means be useful to us. If we desire a life-belt, we choose one made of cork for the reason that the specific gravity of cork is less than that of water; if we desire a furnace which must sustain a high temperature we choose fire-brick which has been subjected to a test and has demonstrated its heat resisting properties. For certain chemical operations, we use crucibles of porcelain, platinum, graphite, according to the properties of the substances which we desire to reduce.

The properties of bodies are constant under continuously like conditions, but because of the variation of our needs they are not continuously useful to us. We warm ourselves at a hot stove; we become warm and may soon become overheated. We must leave the stove. We desire coolness. The first few minutes in an ice-house are agreeable; but our desire does not go to the freezing point.

Some commodities yield their utilities in one dose as it were; others yield their utilities in numerous and perhaps in various doses. An orange which may have been cultivated with infinite pains in California, Florida or in Spain yields its utility in a few moments; and its skin becomes an encumbrance—a disutility. A chair or a table may be utilized for hundreds of years for the purpose for which it was designed and made, and then the

wood of which it was constructed might be utilized for numerous other purposes successively until finally it might be burned as a discommodity.

Some commodities may be utilized for one or other of several purposes indifferently. A piece of pig-iron may be used as ballast for a ship, as counterpoise for a cantilever or as raw material for making steel. A steel ingot may be rolled into armor plate or into rails, plates or bars. The plates may be used for ship construction or for buildings; the bars may be made into tools or drawn into wire. From the same ingot there may come a railway rail, a pair of scissors and a surgeon's knife.

119. *Value dependent upon place or condition.*—While the value which we attribute to an object depends upon its utility to us or rather upon the sum of its utilities (the utilities of the commodities for which it is exchangeable being included), it does not follow either that we must be continually making inventories of our possessions or that we must invariably pay for things in proportion as we consume their utilities.

For example, we may consume air and water without paying, provided the supply is abundant and has not been appropriated by anybody. If, however, the air or water has been transported by public or private agency, we may be asked to pay even more than the cost of the transportation and we may be willing to do so because of the convenience of the supply. If, for example, we desired either air or water at a pressure of more than one atmosphere it might be advantageous for us to pay for it rather than to install machinery for the purpose of obtaining the pressure on our own account. Similarly it may be advantageous to us to install a prime mover in the form of a steam engine and to generate

electrical power for our own use instead of purchasing a supply from a public or private source. Even if we possessed control of water power it might or might not be more advantageous to utilize that power or to purchase electricity elsewhere.

While air and water may be obtained freely, we must take them both *in situ,* that is, in the place in which nature has put them, and we must be content with the quality which nature has provided. Transportation of water is costly as also are both ventilation and change of air.

120. *Exchange value.*—In the *second* sense in which the word value is customarily used by economists, we value a thing because we believe that we can, if we wish, exchange it for something else or for money. There are many cases of, so to say, mixed value or value involving mixed motives. Thus we may possess a picture to which we attach a high value, first, because of its utility as a source of æsthetic stimulus, and second, because of its salability for a high price.

To the merchant, the motive which induces the estimate of value in purchasing and in holding a commodity is, as a rule, quite simple. He is disposed to pay a certain price for it because he believes he can sell it at a higher price. In some instances prices are normally greater at relatively remote periods; in other instances they are smaller. Thus perishable goods like milk must be sold at once; some other goods gain by being kept. Wine matures in the cellar, and is sometimes kept there for years, the price eventually obtained being in general much higher than the price of the immature wine.

Utility is an individual criterion; exchange value is a social criterion, because although the owner of an exchangeable commodity forms a subjective or personal estimate of the value of it, this estimate is based upon his knowledge of the estimate which other persons place upon it or upon his anticipation of the estimates they are likely to place upon it.

121. *Effective demand.*—Estimates in the case of those persons who are final purchasers for consumption are based upon their personal needs taken in relation to their personal resources. There are many things which most men desire more than their resources enable them to obtain. The quantity of goods, however, which they desire and for which they can pay or for which they can obtain credit, constitutes their effective demand; and the total of this effective demand at a particular moment constitutes what is technically known as demand.

In the case of those persons who buy goods to sell in the same form, and of those who buy them in order to use as the raw material of other goods, the desire to purchase depends upon their estimate of the probable requirements of their customers, whether these are final or intermediate consumers. The success of a manufacturing, of a wholesale or of a retail business depends very largely upon the accuracy of such estimates. A mistaken forecast of the probable requirements during the spring season, for example, may embarrass a dry goods manufacturing firm because the goods have to be made before the season begins. If his forecast turns out to be too optimistic he finds on his hands a quantity of goods which have either to be carried over to the following season or to be sold for what they will bring.

122. *Supply.*—Supply thus depends, not wholly, but largely upon demand. If an increase in demand for dry goods among the farming population is anticipated

n consequence of the abundance of the harvest, the local stores will increase their stocks, the distant wholesalers from whom they customarily order their goods will place large orders with the manufacturers, and the manufacturers will work overtime or will install additional machinery, or even additional buildings, in order to meet the demand. Their power to do these things will, however, depend upon their ability to increase the product of their factories with their existing means of production or to procure additional means of production by purchase from their own resources or on credit.

The power of a manufacturer to utilize his existing or increased means of production will also depend upon the contracts he is able to make with his workmen. Since every manufacturer in the same branch of industry may be supposed to be doing the same thing under the same conditions, it may or may not be possible for any of them to increase the prices of their goods, although the mere increase in the product will give them an increased total profit provided the competition is not so keen as to result in diminished prices.[1] Supply may be restricted even though the demand increases and the prices offered by those who desire the goods increase also, because the supply of the raw material may be restricted.

123. *The law of substitution.*—What is known as the law of substitution is to the effect that when the price of a commodity advances to a certain point, another commodity may be substituted for it, provided the price of the second commodity is low enough to render its use more economical than that of the first commodity. Thus, for some of the purposes for which silk is used,

[1] In the early stages of increase of demand, prices tend to rise and to continue to rise, until the supply overtakes the demand.

fine linen is nearly if not quite equally well adapted. If the price of silk rises, fine linen will be used for some of the purposes for which silk is customarily used. Similarly for some of the purposes for which linen is used, cotton will serve if not as well, nearly as well, and if the price of linen rises cotton will be used. If the prices of cotton advances, jute may be used for some of the uses of cotton.

There are no doubt some substances for which no substitute exists for any or many of its uses. Substitutes for mercury are employed for some of its uses; but there are many laboratory experiments for which, in the present state of knowledge, mercury is indispensable. The same is true of platinum.

Substitutes for some of the uses of india-rubber have been found, but no other substance possesses all of the properties of rubber and for some of those uses there is at present no subsitute. The enormously increased use of india-rubber for the purpose of making the tires of automobiles led to a demand for the raw material so greatly in excess of the supply that the price of rubber advanced rapidly. New sources of supply were sought and found, but the price remained high because the rubber plantations which are altogether in tropical countries subject to cyclonic storms, are occasionally destroyed, and because the organization of tropical labor is very difficult. Thus, although the supply has been largely increased in response to the demand, there is no excess.

CHAPTER III

MARKETS

124. *Origin of local markets.*—The relation between demand and supply is discovered in the market. This expression is customarily used in two senses—one derived from the other. The first sense is special and the second general.

Historically, a market is a meeting of persons for purposes of trade. Such markets were held at some place which was convenient for a concourse of people to assemble. Among nomadic people, markets are held on some neutral ground, more or less equally accessible to the tribes which attend it or send their representatives. Markets were thus frequently held at the confluence of two rivers or at some strategic point on a river bank which might readily be fortified in case of attacks by hostile tribes. When especially suitable places were found, they were sometimes occupied in successive years at certain periods, and eventually some of these places became permanently settled. The association of markets with graveyards, and later with churches, is very frequent in Eastern Europe from the earliest times.

125. *The market at Nijni Novgorod.*—The most important survival of an early, although perhaps not of a very early, market on a particular site, is the market of Nijni Novgorod, at the confluence of the rivers Volga and Oka in Russia. This great market which is attended by traders from Central and Northern Asia

and by traders from Europe and America is held annually in August. The permanent city which is quite small is situated on the high right bank of the Volga and on the right bank of the Oka. The city where the market is held is on the right bank of the Volga and on the left bank of the Oka. It is built of permanent houses, which are, however, occupied only during the period of the market.

Although nearly every commodity finds a place there, iron, cottons, furs, tea and ikors (images which are to be seen in every Russian house, shop and office) are the most conspicuous commodities offered for sale. The fur trade of the world has been largely concentrated there. Fur coats which may be seen on Broadway, New York, have probably been purchased in the long street of the fur-sellers at Nijni Novgorod.

126. *Protecting market routes.*—Permanent settlement in or near a market place and the more or less continuous resort of people there, even though the market might be held only periodically, necessitated the protection of the routes which led to and from the market. If these routes were exposed to hostile attack, the traders who customarily found their way to the market might fear to traverse the route or might be cut off if they attempted to do so.

127. *Some well-known market places.*—As communications came to be more effectively organized and as the trading cities succeeded in offering improved facilities for trade, special markets came to be localized and certain localities became places of resort for merchants. Thus the slave markets of Bagdad and of Constantinople were of importance in early ages, as the Fur Fair and the Book Fair of Leipzig are of importance now. The market for hiring farm laborers, known as the Fal-

kirk Tryst, and the market in Glasgow for hiring domestic servants, known as the Buchts, are examples of survivals of ancient periodical markets in Scotland. Examples of continuous markets are to be found in the Bazaars of Eastern cities and in the markets of the Belgian coast towns, and an example of a weekly market is to be found in the Sunday morning market for old clothes held in the square in front of the Hotel de Ville at Brussels.

The commercial law of every country and much of the municipal law have been developed from the regulations of the market. The tolls charged for the use of the market were almost the beginning of municipal taxation.

128. *Operation in a typical local market.*—In modern times the small local market still plays a large rôle in urban and semi-urban life both in Europe and in America. The reader is recommended to attend a local market and to observe the transactions closely. By doing so he will have brought vividly before him on a small scale precisely the same problems in value which present themselves in the world-wide markets for the great staples.

The proceedings of a typical market in a small German town may be briefly described. In the early morning the farmers' carts begin to come into the market place. Some of them have come from a great distance and have started probably at two or three o'clock in the morning. The carts bring hay, grain, vegetables and fruit according to the season, and always poultry, eggs and butter. They generally bring also some products of the domestic industry of the farmer's family—lace and the like.

Sometimes the farmer transacts his business himself.

Frequently his wife or daughter acts as saleswoman. Customers arrive early and look about. Habit plays a large part in the German provinces, and customary prices are still very prevalent; but even customary prices have their customary variations. Different prices are expected at different hours in the market, and strangers are usually called upon to pay more than friends.

Prices which had been paid at the height of the market on the previous day are asked at the beginning of the market. Few transactions take place. More carts come in and more customers arrive. It soon appears either that there is a good supply of vegetables, or that the supply for the day is not going to do any more, or even perhaps may do less than will satisfy the demand at the price of the previous day. Intending purchasers become less keen if they find that the supply is large, and more keen if they find that in relation to their estimate of the demand it is relatively small.

By eight o'clock in the morning the most fastidious and the largest buyers have probably after discussion and much higgling settled upon the prices and made their purchases. Then those farmers who have sold out their produce may leave at once; those who have not done so endeavor to get the prices which have been fixed in previous transactions. The poorer customers wait until the end of the market to pick up at low prices the remainder of the vegetables and other produce, for as a rule the farmers will sell at a low price rather than carry the produce back to their farms. By ten o'clock the market is practically empty save perhaps for some booths which are erected by local people for the sale of miscellaneous goods of town manufacture to the farmers' wives.

The range of fluctuation in a restricted market of this

kind is not usually great; the variations result from the relation of supply and demand with due consideration to differences in quality—for the village folk are shrewd buyers—and from slight preference to favored regular customers and to large buyers.

What goes on in the small local market, with its well-informed and shrewd buyers and sellers, is very similar to the proceedings in larger markets, in spite of the insignificance of the supply and the demand in the former case; yet in the latter the calculation of probabilities upon which bids are made and entertained are much more complicated because much wider influences must be taken into account.

In the Corn Exchange at Liverpool there is a daily market for wheat as there is also in the wheat pit at the Board of Trade in Chicago. In the Royal Exchange at Glasgow there is a daily market for pig-iron known as the Iron Ring. There are numerous other examples of the localization of the market for staple products.

129. *Market in the general sense.*—It has been observed that the cardinal characteristic of a market is that it is a concourse of people assembled for the purpose of engaging in trade. Various historical examples of such concourses have been given above. There is, however, another sense in which the word market is used by economists. This sense has been derived from the historical market. Actual assembling of traders in a concourse is no longer necessary to constitute a market in this new sense, although such assemblies take place daily. The ocean telegraph cable has made "the world one city," and has given the world one market.

The word "market" has thus come to be generalized. It now means the invisible concourse all over the world

or in the important centers where commerce is conducted on a large scale, of people who are engaged in trading in particular commodities at a particular moment. Thus the market for wheat is, as it were, attended by wheat buyers and sellers throughout the world—in Great Britain, France, Germany and other great consuming countries, as well as in Russia, Roumania, Egypt, India, Argentina, Canada and the United States, the principal producing countries.

Whatever influences the demand on the one hand and the supply on the other, in respect to wheat in all of these countries, influences the wheat market, which is indeed the generalized expression for the total of wheat demand and supply, present and prospective, throughout that part of the world which is within the sphere of international exchange.

In a strict sense the market means the combined state of demand and supply in a particular commodity at a given moment. Transactions are always taking place in the great staples—supply is always being diminished by the absorption of goods in consumption, and is always being increased by production. So, also, demand is satisfied by supplies and revived by recurring wants. The market for goods is like a reservoir which is being drawn from continuously, and which is being continuously replenished.

130. *How to approach study of "the market."*—A concrete study of market practices has been suggested, but without some guidance such a study is very difficult because for most people the practice of the market must be looked at from an unaccustomed angle.

In scientific studies a common plan is to formulate, provisionally, certain assumptions and to build upon these assumptions. If the reasoning is sound the conclu-

sions will be sound for all cases in which the ascertained facts correspond with the assumptions. If the ascertained facts do not correspond with them, and if the divergence between them can be ascertained, the necessary corrections may be made upon the assumptions and therefore also upon the conclusions.

Thus, for example, the compass is adjusted to indicate the North. Those who are skilled in such matters know that it does not anywhere do so precisely, and that it is necessary to make a correction for the local magnetic variation. The compass is, however, extremely useful because, given a knowledge of the variation, the exact position can easily be ascertained by means of it.

In economic reasoning it is assumed that everyone not only knows where his economic interest lies, but that everyone is engaged in the constant pursuit of his own interest. This assumption may not be well founded, but if we know the amount of self-regardlessness in an individual case, a very hard matter to ascertain, we can then find out what variation from the normal course of action to allow for. Proceeding upon the assumption that the pursuit of self-interest is the dominant motive, we may ask what are the factors which determine the relative values of commodities as expressed in market prices.

131. *Supply and demand illustrated.*—Clearly, we have to deal with two sets of people in any market—with those who desire to buy and with those who desire to sell. Among the former set there are some who are urgently desirous of buying. The commodity which they want may be quite necessary to them, and their resources being ample they are prepared to pay any price which is demanded. In the same market there are also among the latter set some who are equally urgent sellers

—they are prepared to sell for any price which may be offered. In each set there may be found persons who are indifferent, and between the extremes in each set there will be found many who occupy intermediate positions. It is clear also that in a market where there is a predominance of the demand side, that is to say, where there are more goods of a particular character demanded than the visible supply can provide, the most urgent buyers will exert a strong influence toward raising the price. The price under such circumstances will tend to approximate toward that price which can be paid by the most urgent buyers. These buyers are sometimes known as *marginal buyers,* and the process just described is the operation of the *law of marginal utility.*

On the other hand, in a market where the supply is in excess of the demand, the price will tend to approximate to the price which the most urgent sellers will accept. In other words, we have an example of the operation of the *law of marginal disutility* in contrast to the *law of marginal utility.*

In the case of the buyers the urgency will depend upon the desire to possess the commodity and to utilize it; and in the case of the sellers the urgency will depend upon the desire to dispose of a surplus utility of one kind in order to acquire a utility of some other kind for the purpose of satisfying an immediate want. Thus a farmer having a surplus of hay, and having not the wherewithal to provide food for his family, must sell the hay in order to provide food, while another farmer having food for his family, but having no fodder for his animals, must buy hay to feed them.

132. *How prices are established.*—The market price at a particular moment will tend to be fixed at the

point on a scale of prices at which the most urgent (or marginal) seller meets the most indifferent (or marginal) buyer or, conversely, where the most urgent buyer meets the most indifferent seller, according to the relations of supply and demand in the market.

But both demand and supply are elastic. If there is an inadequate supply to meet an urgent demand, there will be a tendency for further supplies to be forthcoming, and if there is an inadequate demand to respond to urgent desire to sell, further demand will tend also to be forthcoming. The general tendency of the market will be to draw out demand and supply alike in such a way as to produce an equilibrium. Where this process cannot take place, because supply cannot be obtained (as in the case of india-rubber previously mentioned), the phenomenon of rising prices will appear; or where demand does not respond (as in the case of over-production), the phenomenon of falling prices will appear.

133. *External influences upon market.*—Behind all subjective estimates of value there are the external conditions which are regarded in relation to the respective individual desires. The characteristics of these external conditions are very numerous.

With the universalization of the market through the improvement of means of communicating the state of the market at different places almost instantaneously, certain market centers exert an important influence upon the general market under certain conditions. Owing to the difference of time between the two great commercial continents—Europe and America—and owing to the fact that in the most important staples which form the bulk of international trade—grain and cotton—Europe represents demand and America represents supply, under all conditions in which demand is more influential than supply, the European markets are more influential in determining the price than the American. On the other hand, when it happens, as it occasionally has happened, that supply is deficient, the dominant influence is on the Western side of the Atlantic.

The difference of time is important because European business is almost closing for the day before business in the United States begins. The course of trading in Mincing Lane in London, and in the Corn Exchange at Liverpool, thus influences inevitably the course of trading in the Chicago Wheat Pit.

CHAPTER IV

PRICES

134. *A "fair exchange."*—The medieval idea of a "just price" did not stand alone; it was one of a group of ideas. Throughout the middle ages and in modern times in certain parts of the world (notably in Asia) custom exercised an immense force and the customary price became the fair one. It was not always the same price, although it was customary. The "fair price" to a stranger was not a "fair price" to a friend; and a "fair price" in the morning was not necessarily a "fair price" when the market was about to close. Even where the "fair price" was a pervasive idea, bargaining was not unknown.

The notion that from the social point of view it does not matter whether a bargain is advantageous or not to one or other of the parties to it cannot be accepted without qualification. So far as the bargain in the strict sense is concerned, it cannot matter because the bargain is not of itself a productive operation. The bargain concerns itself with the value of a product, but does not of itself either increase or diminish production. Yet the result of a bargain or a series of bargains may be an increase or a diminution of production.

If, for example, a craftsman excellently skilled in his craft is unable to make a living from the sale of his wares because he is unable to make such bargains in the sale of them as will enable him to realize their full value, and if in consequence of this circumstance he abandons

the making of the wares in question, the "social dividend" may thereby be diminished.

So, also, if in a bargain about wages, a workman obtains for work in his proper craft less than a living wage, he may decide to abandon the craft in the practice of which he is skilled and to devote himself to the practice of some other craft in which he is less skilled; and the social dividend may suffer loss.

Or, in a larger case, if a group of wage earners are so remorselessly exploited by their employers that they receive wages of a less amount than will suffice to maintain them at their normal level of efficiency, even though they render services to their employer of much more value than their wages represent, the "social dividend" will suffer from their inferior efficiency.

Thus, in wage bargains especially and in some other cases of bargain making the "fairness" of the bargain is not a matter of social indifference. Where, however, both parties to a bargain are equally productive, and where their consumption is of a like character, it is matter of indifference in a social, although not in a private sense, whether one or the other secures an advantage in a bargain.

The case is really the same as where one of two completely idle and dissolute gamblers wins from the other a bet. In either case, the proceeds of the bet will be expended in dissolute living, and in neither case will the fact of the bet being lost or won affect production in any sense. The transaction is thus a matter of social indifference.

Where, however, a person who, under normal circumstances, expends his resources productively, loses a bet or makes a bad bargain in a transaction with a non-producer, the national dividend must suffer, as it might

gain if the same person won a bet or made a good bargain under the same conditions.

135. *Customary prices.*—While it is true that customary prices are very widely spread, and that the family and the caste exercise a powerful influence in the determination of wages and prices alike (especially in India, although not exclusively there), it is also true that very considerable variations in relative values occur even under conditions where customary prices are prevalent. Such variations are exhibited, for example, in the fluctuations of the value in Chinese "cash" of the Mexican dollar. These fluctuations are exceedingly wide and they seriously affect the economic condition of a community because, though eventually all prices follow them, they do not do so simultaneously. The fluctuations in the prices of land, for instance, usually lag behind those in the prices of other commodities.

Relative values indeed are much more variable in primitive communities than in those upon a higher level of culture. The practice of bargaining is more continuous. While there are usually several prices in the same local market for the same thing—one for the stranger, one for the fellow countryman and one for the friend, all of these are more or less individual. Some weight must also be attached to the period of the day at which the bargain is made. In China it is considered very unlucky to lose the first prospective customer, through want of tact in bargaining, and a relatively low price may thus be accepted from an early buyer.

136. *Money as the standard of value.*—The origins of money have already been discussed; it is now necessary to observe the rôle played by money as the standard or measure of the value of commodities. The universality of the demand for gold and silver has placed them,

as we have seen, in an unique position as money materials. Their relation to one another or the value of one in terms of the other is therefore of great importance. If any other commodities were recognized with similar universality, their relation to one another would at once become of equal importance because of the relation of the group to commodities in general which such recognition would imply.

The relation of gold and silver to one another in respect to value depends upon three conditions. These are: *first,* the quantities of each which are in existence at any particular moment; *second,* the net prospective future production within a given period, and *third,* the status of each of the metals in monetary law.

137. *Quantity of gold and silver in existence.*—The gold now in existence, in circulation as money, hoarded by governments or by private persons, and in the form of manufactured articles or objects of art—jewelry and the like—and the quantity of silver existing in similar forms may not be susceptible of precise determination, and large quantities of both metals exist in forms which can never come into the market in any serious sense. Yet the two quantities, unknown though they may be, exercise an important influence upon one another, and upon those portions of each metal which do come into the market.

The net prospective production may similarly be difficult to determine precisely. The production of gold and of silver during a specific period may be known within reasonable limits of accuracy, and the prospective increments during a similar period may be estimated, but the quantities which have been used up during a like period are more difficult to determine. The abrasion of coin can readily be estimated, but it is more difficult

to determine the amount of loss of gold and silver used in the arts and the amount lost beyond reach of recovery.

The *net* increments, however, as they are revealed from time to time, undoubtedly influence the value of one metal in terms of the other. Thus a long-continued excess of production of gold over the production of silver would undoubtedly depreciate gold and appreciate silver, as a long-continued excess of silver has during recent years had the contrary effect. If suddenly there were to appear in India, for example, a long-concealed hoard of gold of enormous dimensions, by no means an impossible contingency, the value of gold, other things being equal, would necessarily decline.

138. *National monetary laws.*—If all countries had an uniform and unalterable monetary law, changes in the relative values of gold and silver would still occur through changes in the international trade relations of the different countries. But the monetary laws of countries within the sphere of international trade relations are not uniform, and are more or less frequently subject to alteration.

Thus, for example, Japan possessed at one time a silver currency, but altered her monetary law in such a way that gold became the standard instead of silver. At one time, also, Germany used a large amount of silver currency and a relatively small amount of gold currency. After the Franco-Prussian war, Germany withdrew a large amount of her silver currency and substituted gold. France, Belgium, Italy and Switzerland (the Latin Union) had an uniform monetary law by which the mints of these countries coined all silver offered to them at a certain definite proportionate value in respect to gold, and then, in 1873, suddenly changed

the law and limited the amount of silver which their mints were permitted to coin.

Changes in monetary laws may produce effects similar to those produced by changes in the relative quantities of the metals extracted from the mines and sent into the market, either through the sudden or gradual placing upon the market of quantities of the metals, or through the change in demand for currency purposes.

139. *Effect of gold and silver values upon prices.*—The effect of alterations in the quantity of the metals employed for the settlement of international transactions, however these alterations may be caused, is to alter the values of commodities, as expressed in amounts of these metals. Thus, an increase in the quantity of silver offered in the market depresses the exchange between India and Great Britain, because in India prices are expressed in silver and in Great Britain prices are expressed in gold. Similarly an advance in the price of silver, due to excess of demand, will alter the exchange between the United States or Canada and China because prices in Canada and the United States are expressed in terms of gold, and prices in China are expressed in terms of silver.

The fluctuations of international prices from this cause alone are very considerable. The initial reason for the fall in the price of silver may be very trifling—a shipment of a few thousand ounces may cause a fall of one or two cents per ounce—but all the transactions which follow are immediately affected by that circumstance in so far as they take place between silver-using and gold-using countries. Thus, at one moment goods shipped to China from the United States or from Canada will be paid for at the rate of 40 cents per gold dollar, and at the next moment, in consequence of a change

in the value of silver, goods of the same kind will be paid for at the rate of 41 cents or of 39 cents, as the case may be.

140. *Bimetallism a cure?*—The steady decline in the value of silver in terms of gold from the historical circumstances which have been indicated has at times so seriously demoralized foreign exchange between gold- and silver-using countries respectively that proposals have been made from time to time, when the situation became unusually acute, to fix once and for all the value of silver in terms of gold. Proposals of this kind have varied in form; but they are usually described under the general name of bimetallism because they involve the acceptance of both metals as a monetary standard.

It has become obvious that only a general international agreement involving also the control of the mintage of silver by all countries could effect the desired result. Such an international agreement has not yet been arrived at. On the contrary, the tendency of the commercial nations appears to be to regard silver not as an international currency medium but as a commodity, and to allow it to reveal its relation to gold in the market as do other commodities. This attitude has been brought about largely through the increase in the production of gold and through the rise in general prices which has occurred from this and other causes.

Bimetallism, as a propaganda, arose during a period of falling prices, and subsided during a period of rising prices. The object of bimetallism is to diminish those fluctuations of prices which arise in consequence of the variation of the value of silver in terms of gold. It is thought by those who advocate bimetallism that fluctuation of prices, involving as it does disturbance of the economic equilibrium, is an evil, and that it ought to be prevented in so far as possible. The causes of price fluctuations are, however, very numerous, and many of them would not be affected by any change in currency laws.

CHAPTER V

SOME FACTORS THAT AFFECT PRICES

141. *Climatic variations.*—While the prices of commodities are determined in the market, either in the special or in the general sense of the word, by the forces of demand on one side and supply on the other, many influences contribute to determine the extent and character of demand and supply, and to determine the state of mind of buyers and sellers respectively. The principal influences are described in this chapter.

A dry season will cause an advance in the price of wheat through the indication which it gives of a shortage in the crop. A drought in the United States, Canada, Russia, Roumania, Germany or Great Britain would have this effect. So, also, heavy rains in harvest time would "lay" the crop and render harvesting operations difficult. Some grain would be totally destroyed. The cotton crop is peculiarly liable to be affected by the weather.

The failure in the harvest of one grain will often affect seriously the demand for other grains to take the place of the grain in which the shortage has occurred; for example, the failure of the rye crop in Eastern Europe will have the effect of raising the price of wheat and of potatoes because the peasants who customarily consume rye will be driven to obtain a substitute.

Some part of the deficiency in the crop must be met by deficiency in consumption, but the demand, in general, will usually be great enough to cause an advance

in the price of a large range of consumable commodities should there be a serious deficiency in any important crop, although such a deficiency will diminish the resources of the people affected by it. The failure of the rice crop in China or Japan or the failure of the millet crop in Manchuria will not only impose serious sufferings on the part of the people in these countries, but will tend to increase the price of other foodstuffs which must be consumed at least to some extent in order to support the population.

An abundant harvest, on the other hand, in any one important grain will tend to diminish the prices of all foodstuffs as well as to increase the resources of the people of the producing area, and thus to increase their demand for the commodities habitually consumed by them. An abundant harvest thus tends to diminish food prices, and to increase the prices of other consumable commodities.

142. *Effect of war on prices.*—The outbreak of war affects prices in a complicated way. In the first place the prices of war material will be raised in consequence of the sudden increase of demand for such material. The extent and character of such price movements must depend upon the locality and nature of the campaign. The campaign against Arabi Pasha in Egypt, for instance, led to a great advance in the price of mules, owing to the great numbers which were required for military purposes. During the progress of the South African Campaign large numbers of mules and horses were purchased in Europe and in America for transportation and for the cavalry and artillery. The result of this extensive increase in demand was a scarcity of mules and horses for years afterwards.

War also increases the demand for canned meats and

the like, for military clothing and for guns and explosives. It also tends to diminish supply through the withdrawal of working force from field or factory, and thus to increase some prices, even though the total demand should fall off in consequence of the absence of the usual consumers.

During a great war the urgent demand for capital in the form of national loans and for increase of the public income in the form of taxes tends to raise the rate of interest and to divert capital from its customary channels. A portion of the demand induced by the war is thus diverted rather than reduced; but the diversion of capital always causes disturbance to the industrial and commercial equilibrium.

If the theater of war is a grain-producing country like Russia, Roumania or Manchuria, for example, it might have the effect of diminishing the export of wheat either because the ports were blockaded, because of the withdrawal of working force for the army or because of the actual military occupation of the wheat fields. In Manchuria during the Russo-Japanese War the wheat trade of the country was practically destroyed by the immense extent of the fronts of both armies extending, as they did, over a great part of the plain of Central Manchuria at Liaoyang and Mukden.

143. *Effect of political elections.*—In England a general election affects trade to a comparatively small extent. If it occurs, for example, between May and August it affects the retail trade of London, and if it occurs in harvest time (which is rare) it affects retail trade in the rural districts; but in the absence of any political issue affecting seriously the business of the country as a whole, trade is not usually materially influenced. It is otherwise in the case of a Presidential

election in the United States. The relations of politics and commerce in that country are so intimate that such an election always affects prices more or less by exciting anticipations of an increase or a diminution of the tariff.

144. *Changes in production.*—While the germs of the great inventions made their appearance in the eighteenth century or earlier, the nineteenth century contributed much to their growth. The steam engine was improved, although not by any means perfected; the railway was enormously improved by the application of steam; the steamship, the electric telegraph, lighting by gas, the incandescent electric light, the telephone, wireless telegraphy were all the products of the nineteenth century. Already the twentieth century has distinguished itself by the improvement of the flying machine, and by the enormous development of the automobile. These inventions and improvements have greatly multiplied conveniences and have greatly increased the desire for them.

The appetite grows by what it feeds on. The new range of commodities, which new inventions imply, results in a demand for new resources of supply and for subsidiary inventions. The new demand for certain commodities induces their exploitation or manufacture on an increasing scale, and the cost of production diminishes. The competition of sellers speedily brings down the price in spite of, and, indeed, primarily because of, the increased demand. The production of incandescent gas mantles brought into the market a metal *tungsten,* which had been previously produced only as a curiosity in the laboratory. The same metal was later found to be susceptible of utilization for the films of incandescent electric lamps. Many chemical

compounds which were used, and even then comparatively rarely, as drugs, and produced in small quantities for pharmaceutical purposes, have suddenly made their appearance as important re-agents in chemical processes on a manufacturing scale.

To begin with, the wholesale dealers are exhausted, perhaps even the druggist shops are ransacked for supplies, the manufacturers' stores are depleted, and the price rises because of the urgent demand. Then the manufacturer turns his attention to the new phenomenon. He begins to manufacture in quantity. The price may rise vigorously before he is able to put his first supplies on the market. Then if the commodity can be made from raw material readily procurable, the manufacturers are able ere long to place it on the market in quantity. Under the assumed conditions competition will soon become active, and the price will soon fall to a point even lower than it was before the new demand arose. Increased demand has induced increased production, and this has reacted upon price.[1]

While an increase in demand may induce an increased production at a diminished cost, a diminution in demand resulting in a lower price may induce efforts toward reduced cost of production in order to meet without loss of profit the conditions of a lower level of prices. This is a familiar experience in all manufacturing industries. When demand is brisk and prices are high enough to yield a manufacturing profit above the average, costs of production are not scrutinized closely; but when demand and prices are falling the manufacturer may find himself encountered by the dilemma of reducing the cost of production or of going out of business. Since the

[1] An episode in the history of Tartrate of Antimony, or Tartar Emetic, which occurred about 1880, is used in the above illustration.

supply price will under such conditions tend to approach the supply price of the marginal manufacturer, that is to say, the manufacturer who can continue his business at the reduced rate of price, the manufacturer who is able to economize in his cost of production to the greatest extent, will in a falling market survive longest; and will in a rising market gain most, because although his costs may advance later in accordance with a general upward movement of prices, they will not likely advance all together, and some of his economies will be found to be permanent. Exchange thus reacts upon production, tending under certain conditions to raise the cost of production, and under other conditions to reduce it. Production also reacts upon exchange; the increase of supply tends to depress price and the diminution of supply to enhance it.

145. *Variation in relations of commodities.*—Such variations are closely related to those caused by the invention of new processes; but they are also related to the substitution of one commodity in a group for another in the same group because of certain of the utilities of which the latter may be susceptible under certain conditions of prices.

Cotton will be substituted for linen for certain purposes when the price of cotton advances; for certain other purposes, for surgical dressings, e. g., linen must continue to be used no matter what the price may be. Linen will be substituted for silk under certain conditions of the price of silk. If the price of silk falls, there will be a tendency for silk to be used in preference to linen; e. g., in the Far East and in Russia silk is made from the cocoons of the silkworms, which is not so fine or so regular as those made by silkworms under careful cultivation of the mulberry. This rough silk is ex-

tensively used for male clothing because it is light and durable, and clothing made of it is only twice the price of linen. If the price rose above this proportion, there would be a tendency to substitute linen.

During the South African war there was a great demand for light woolens, and the price of fine numbers of woolen yarns advanced. The use of "unions" or mixtures of wool and cotton increased considerably, cotton being substituted for wool in the manufacture in order to diminish the cost of production. The manufacturers were thus enabled to maintain the price (although the goods were inferior), and thus to sustain the demand.

The preparation of attractive designs or styles in a relatively cheap material often diverts demand to it from more expensive material in which the designs are less varied and attractive. This is the case especially during periods of depression when incomes are relatively low. The use of French foulards or fine printed calico, for which Mulhouse became famous, superseded to some extent, between 1877 and 1886, the use of silk and satin in ladies' dresses. Printed linen about the same time superseded hair cloth and other relatively expensive materials in upholstery.

146. *Applied to metals.*—In the markets for metals an advance in the price of iron will diminish the difference between that price and the price of other metals like copper (which is even more suitable than iron for many purposes for which iron is customarily used when the price of copper is relatively high.) If, for example, copper nails were five times the price of iron nails and lasted four times as long, iron nails would be less costly to use; but if iron advanced until the price of copper were only three times the price of iron, it would be more economical to use copper nails for all those purposes in which durability was an important consideration.

On the other hand, if the price of copper rose instead of the price of iron, there would be a tendency for iron, especially galvanized iron, to be used for many of the purposes for which copper had previously been employed. For those purposes, however, for which copper in the existing state of technical knowledge is indispensable, copper would continue to be employed to whatever height the price might go. For many electrical purposes, for the construction of magnetic observatories, and for the outer sheathing of wooden ships, the use of copper is at present indispensable. In the event, however, of the price becoming very high, it would come into competition for some purposes with silver.

The diversion of demand from one member to another of a complementary group leads to an advance in the price in response to the increased demand, although, owing to the increased production in response to that demand, the price may eventually fall below its previous point. Thus a demand for aluminum, nickel and manganese has led to the production of these metals on an increasing scale, and to reductions in their prices. For certain purposes they compete with one another and with other metals.

The expression "complementary commodities" also applies to groups of commodities which are either manufactured together and are therefore subject to joint cost or are utilized together in one manufacturing process. In the reduction of copper ores, for instance, other metals than copper are produced, although their production is not the chief object of the process of reduction; and in the smelting of iron, coal is used. Copper, antimony, silver and sometimes other metals are

thus in one sense complementary, and coal and iron are complementary in another sense.

147. *Changes in consumption.*—Increase in population occurs from two causes; from natural increase—the number of births minus the number of deaths—and net immigration—that is, immigration less emigration. A net increase of the population involves an increase of demand unless the character of the new population in respect to consumption and to effective demand is inferior to that of the former population. There is, indeed, always a difference in consuming power. An increase in the birthrate does not necessarily mean an immediate increase in the demand for food customarily consumed by adults. Yet if this increase continues for some years, the increased demand of the growing children will become noticeable.

Italian immigrants on their arrival in New York were reported a few years ago as being frequently so habituated to scanty fare that they were unable to eat a generous meal. Gradually they acquired the power to consume more largely. The great improvement in the economical position of Southern Italy has probably rendered this observation less true. The Italian immigrants to Patagonia are reported to have acquired the habit of eating enormous quantities of meat, a diet to which they were wholly unaccustomed in their own country.

The gradual assimilation in respect to quantity and character of consumption of the new to the old population results inevitably in an increase of consumption and, as the added population begins to affect production, eventually in a great increase of effective demand and of supply alike.

148. *Growth of population in urban centers.*—Variations in price which are due to increase of population are most conspicuously noticeable in the case of rapidly growing urban centers. The growth of towns is no new phenomenon, nor is it confined to America. The ancient democracies were created by the towns as modern democracies are maintained by them. Concentration of population on particular sites has been due in former times to many causes. Such a concentration may be due to the fact that the site is a strategic point for defense like Edinburgh and Quebec, for political administration like Rome and London, for trade like Venice, Chicago and Montreal, or for communication like New York, whose harbor has made it the point of contact between the new world and the old. Towns grow round shrines as Nikko in Japan, round ecclesiastical buildings as many of the cathedral cities in England, round groups of scholars as Oxford and Cambridge, or in the center of agricultural regions like Moscow and Winnipeg. The sites of those modern cities which have been deliberately planted like St. Petersburg, Washington and Ottawa have been chosen chiefly with a view to their suitability for political administration. Some cities are founded with difficulty upon their sites—whether selected or the result of accidental occurrence. St. Petersburg and Chicago are largely built upon piles in swamps; Venice and Amsterdam were built in the sea.

149. *Causes for movements of population.*—Concentration of population in urban areas in modern industrial countries occurs from one or the other of two general groups of causes: *first,* those causes which arise in the cities and towns, the attraction of higher wages for industrial than for agricultural employment, the attractions of social life, facilities for education and the like;

and, *second,* those causes which arise in the rural districts, the isolation of the farms (especially in those parts of a country where the system prevails of granting to railways and to homesteaders alternate sections), the arduousness of agricultural life, the deficiency of comfort in the farmhouses, the absence of general society, the friction generated by intimate contact with a small number of persons unrelieved by variety, the arbitrariness of the chiefs of the farming community, their deficient sense of justice, their sordidness and sometimes their inefficiency as agriculturists—defects which render it difficult for the farmer to secure hired assistance, and even to retain the services of his own family, whom he habitually undervalues and underpays. The flights of peasants in Eastern Europe from excessive burdens have their counterpart in the flight of the farmers' sons from the yoke of farm labor in nearly all agricultural countries under the conditions of commercial farming.

Rural depopulation occurs through migration to other rural districts, to the towns or through emigration. In any case it tends to diminish the working force and to diminish local production. Migration may, however, tend to improve the condition of those who remain as well as of those who migrate, the first through the increase of agricultural wages due to the relative scarcity of labor, and the second through the transference of their labor to a more remunerative field. The congested districts of Ireland, Eastern Austria, some parts of Central Russia and many parts of Southeastern China have been relieved at least temporarily by emigration. Rural depopulation has occurred in Ontario in consequence of migration to the Ontario towns, to the prairie provinces and to the United States. In Great Britain,

rural depopulation proceeds at a rapid rate stimulated by the industrial prosperity of the towns and by emigration. It is not a little remarkable that while in Great Britain and in America complaints should be made of the undue urbanization of the population, precisely opposite complaints should be made in India, where the decay of industries in the towns has led to the ruralization of the people.

150. *Effect on prices.*—The movements of population result in diminished demand from the places which the people leave, and increased demand in the places to which they go. Deficient harvests in the upper valley of the Dnieper, in 1899, caused so great a decline in the demand of the peasant villages that the towns (like Mohilev) were struck by industrial depression. Artisans and traders were forced by this depression to leave the towns for cities (Smolensk, Minsk, Warsaw, etc.), or to emigrate to America. The cities gained in population, wages fell and there were industrial disturbances owing to the fall of wages. Meanwhile the ruin of the small towns affected the distribution of country produce, and prices in the cities advanced in consequence of the increased population (although the power of consumption per head had doubtless diminished) and in consequence of the restriction of supply.

But the advance of prices in the cities penetrated to the producing areas, and in course of time economic equilibrium was again restored.

In the countries to which the emigrants went, the demand was increased by the inrush of new consumers, and in spite of the increase of production, which was the result of the immigration of industrious people, prices tended to advance because there was a net increase in the consuming power of the newcomers. It is well

recognized that no matter how frugally immigrants may have lived in their native country, they quickly adopt more extravagant habits whenever they are able to do so.

151. *Changes in standard of comfort.*—Changes in the standard of comfort, especially when they extend to the mass of the people, exercise an important influence upon demand. Such changes are induced either by increased resources in the form of increased wages or other incomes, or they are induced by increased supplies of certain commodities resulting in diminished prices. In the eighteenth century, the customary household beverage was home-brewed beer. Tea was used sparingly even by the well-to-do classes. In the early part of the nineteenth century tea was still relatively expensive and was rarely consumed by the working population. The development of tea plantations, especially in India and in Ceylon, where tea planting is very skillfully conducted, has in competition with the teas of China and Japan resulted in a greatly increased supply and a considerably reduced price.

The masses of the people in Great Britain now consume tea as in Continental Europe generally the masses of the people consume coffee. The greatly increased demand has been responded to by increased supplies, and prices have therefore not risen, the change having been gradual and the business of tea-growing having attracted abundant supplies of capital.

The situation is somewhat different in the case of beef. In the beginning of the nineteenth century agricultural laborers and even small farmers consumed beef very rarely. The town artisan did so less infrequently but still seldom.

The advance of wages and, no doubt, also the greater sumptuousness of labor, induced increased consumption of

beef, especially in the great industrial centers. The consumption of beef per head went up enormously. The supply was procured from the Western plains where cattle ranching was conducted on a large scale. But the drift of population westward caused the settlement of large tracts of country previously used as cattle ranges (as in Southern Alberta, for example). Settlement was more profitable than cattle raising and the ranchmen sought remoter places or went into grain or mixed farming.

The supplies of stock, instead of increasing with the demand, diminished with it. Greater economies were exercised in dealing with beef, yet the price of beef has advanced more or less steadily—a consequence on the one hand of the change in the standard of comfort which induces the mass of the people to consume beef when formerly they did not do so, and on the other hand of the relative diminution of the available sources of supply in face of the increasing demand. Changes in standard of comfort divert demand into new channels and frequently lead to the disuse of commodities previously extensively used. In some respects such changes are indistinguishable from changes of fashion.

152. *Changes of fashion.*—For ages changes of fashion have been important causes of variation in price. This cause of variation affects particularly articles of luxurious consumption, especially the finer textiles and jewelry. Materials like bombazine and plush, which were formerly in extensive use, are now almost unknown. The factories where they were once made in quantity are now closed or diverted to other products.

Risks of changes in fashion are so great that in order that the businesses affected may be continuous, such risks must be taken into account in determining the

supply price. A certain number of the commodities subject to these risks may be sold in the beginning of the season at or near this estimated supply price. At the close of the season, the remainder are either sold at a reduced price—that is, at the demand price of the time — or they are retained for subsequent sale or for remanufacture.

Fashions sometimes come round again and those who have been able to keep their stocks may benefit. Sometimes, indeed, old-fashioned things attain a high value because of the demand for them on account of the excellence of their manufacture or because their production in the old manner has ceased. Examples of this phenomenon are Paisley shawls and Sheffield plate.

Jewelry which has gone out of fashion is customarily melted and remanufactured, hence the high prices which antique jewelry of fine design brings in the market. Precious stones are set and reset.

CHAPTER VI

EFFECTS OF COMPETITION AND MONOPOLY

153. *Competition.*—In the history of all commodities there have occurred periods of relative abundance and relative scarcity—abundance when consumers or purchasers have had the advantage of producers or sellers competing with one another, and scarcity when producers and sellers have had the advantage of consumers or purchasers competing with one another. Indeed, there are few commodities in the production, transportation or retailing of which there is not discoverable at some point an element of scarcity or quasi-monopoly. It is useful to assume the existence of an atmosphere of universal competition, because in the absence of some assumption of this kind no constructive reasoning could be conducted; but it must be realized that continuous correction must be made on account of the divergence of actual conditions from those which would occur in an atmosphere of unrestricted competition.

Within the area of the market every buyer of goods of a certain kind is a competitor of every other buyer of such goods. So, also, every seller competes with every other seller of goods similar to his own. The competition of sellers determines the sellers' price and the competition of buyers determines the buyers' price. If the sellers are many, and if their urgency to sell is great, the competition may be almost fierce. A remarkable instance of the fierce competition of eager and

urgent sellers may be found in the narrow streets of retail shops in Minsk in Poland. There the numerous sellers of all kinds of wares crowd the pavement offering their goods to all passers-by, almost dragging them by main force into the narrow doorways of their little places of business. Perhaps nowhere in the world is competition for trade so manifestly keen.

If the buyers are many and their urgency to buy is great the competition among them may be equally fierce. Before places of amusement where there are no regular arrangements for orderly purchase of tickets, the struggle for admittance is often almost ferocious.

If, on the other hand, either buyers or sellers are few in number, and if the quantity of goods which buyers are prepared to buy is known by them to be less than the quantity offered in the market, or if sellers are indifferent because they know that the quantity of goods available for sale is less than the quantity demanded, the competition in either case is slender. Where buyers are in the strongest position they will be able within certain limits to dictate their terms; and where sellers are in the strongest position they also will be able within certain limits to dictate their terms. The limits will be defined in the first case by the urgency of the sellers and in the second case by the urgency (taking into account the resources) of the buyers.

154. *Monopoly.*—If there are many buyers or sellers respectively, there is competition; if there were only one buyer or seller there would be an economic monopoly in the strict sense. For a private person to acquire a monopoly either of purchase or sale is very unusual, but it does occur occasionally. A certain celebrated international banking house is understood to have a complete monopoly of the supply of mercury throughout the

world. This monopoly can only be sustained by this house by the immediate purchase of quicksilver mines wherever these are reported to have been found, together with the constant employment of experts in prospecting for quicksilver. This is probably the only instance of a complete and absolute monopoly.

155. *Monopoly prices.*—In the event of a private person procuring by any means a complete monopoly, he might fix any price for the commodity he pleases, provided he were able out of other resources to defray the cost of maintaining the monopoly and simply wait for that price. If, however, he desires to make his monopoly remunerative, this is not his best policy. The most remunerative price for him is that price which will secure the largest net profit. That price cannot be the highest price which he might secure from the most urgent buyer—for in any market there are few urgent buyers. It must be the price which will attract buyers for the quantity which will yield the greatest profit. For example, if a price of $10 per unit of quantity attracted buyers who purchased sufficient to give at this price a profit of $1,000 a year, and if a price of $1 per unit of quantity attracted buyers sufficient to produce a profit of $10,000 a year, clearly it would be more advantageous for the monopolist to fix a price of $1 than to fix one of $10. It might be that as the result of experiment he found that a price of 90 cents would yield only $9,000 a year, and in the interests of his business he would feel himself justified in maintaining the price at $1.

156. *Government monopolies.*—A more usual case of complete monopoly is the Government or legal monopoly in which within the boundaries of its own country a Government declares itself to be the possessor of a monopoly of a service or of a manufacture and prosecutes

any one who infringes this monopoly. Examples of the first kind of monopoly are the Post Office service in all countries, and the telegraph, telephone and railway service in some countries and the municipal monopolies of water, gas, electric lighting and power, and street railway services. Examples of the second are to be found in the tobacco monopoly of Austria, and the playing card and *vodka* monopolies of Russia.

Monopolies of public services and of manufactures held by a Government are subject to precisely the same contingencies as a non-political and purely mercantile monopoly, excepting that the Government may or may not regard the acquisition of profit from its monopoly as sound policy. This aspect of the question is discussed more fully in a later section; for the purposes of the present exposition it may be assumed that the Government monopoly is worked in such a way as to secure a maximum profit for the Government.

Here, again, it is clear that the price which will secure the greatest profit is not the price which will be paid by the most urgent buyer; but is rather the price which will cause the utmost use of the monopoly to be made by the largest number of persons compatible with the maintenance of the service at the point of maximum net yield of profit.

157. *Monopolies subject to law of substitution.*—It should be observed, however, that the law of substitution mitigates very seriously the advantages of all monopolies, public and private. The essence of the law of substitution is that when the price of a commodity reaches a certain point, some other commodity will be substituted for it. In the case of mercury this is very difficult because for nearly all the uses to which mercury is put, no substitute has been found. Yet for some uses, other

substances will serve nearly equally well. Thermometers may be filled with alcohol or with mercury almost indifferently; barometers may be made of other metals than mercury, although they are not quite so reliable for long periods as mercurial barometers. In the case of a Government monopoly in which a large amount of public funds is invested, it may become absolutely necessary, in order to protect the original monopoly, to acquire the substitute for the original service or commodity as well.

158. *Practical effect of a typical case.*—The most conspicuous instance of this is to be found in the history of the English Post Office. When the first Post Office Act was passed, the Postmaster-General, under the advice of the law officers of the Crown, took powers to entitle him to prevent any person not explicitly authorized or licensed by him from carrying any message for payment. This sweeping monopoly was very difficult to enforce in detail; but in general terms it was thoroughly enforced.

The railway companies were forbidden to carry letters unless they were stamped with postage stamps in addition to any charge the railway companies might make for carrying them.

When the first electric telegraph company was established in England, the company was notified that the business it proposed to conduct was a violation of the Post Office monopoly. It was, however, granted a license by the Postmaster-General.

When messenger services were established in the large cities they also were licensed. Under the pressure of public opinion the Government acquired the telegraph systems of the companies which were conducting the business. Under the same pressure the rates for tele-

grams were from the beginning placed at a point which has turned out to be hopelessly unremunerative.

When the telephone system made its appearance the Postmaster-General at once notified the promoters that they would require a license from him to carry on their business. Eventually, in order to protect the telegraph and the Post Office monopoly, the Government was obliged to agree to purchase the telephone system. When wireless telegraphy made its appearance again the Government interposed and licensed it. Ere long, doubtless, it also will be acquired.

In spite of all the force behind the Government, it is with difficulty able to cope with the economic conditions brought into being by streams of new inventions. Even political monopolies are thus extremely difficult to maintain.

159. *Quasi-monopolies.*—A more familiar example of mitigation of competition is effected by quasi-monopolies —in which not the whole of the supply of a commodity but a large part of the supply is brought under the control of a group of persons who act in concert or in copartnership. This phenomenon, known widely as the "trust," will form the subject of further discussion in another place; here it may be observed that the limit to the action of monopolies applies also to quasi-monopolies whether they are in the hands of "trusts" or not. The law of substitution applies equally to both as does also the principle of maximum profit. In the case of the quasi-monopoly the highest price is not the most profitable price; and there is also to be regarded as an important factor in the determination of price, the fact of the competition of the sometimes formidable rivals.

160. *Monopoly prices excessive?*—Whether the price of a commodity like mineral oil would be lower or higher

if the manufacture and distribution were in the hands of a large number of competing producers, each advertising his own product, instead of being in the hands of a few powerful companies competing with one another, is a question to which no decisive answer can be given. Competition between two large producers may be as effective in reducing the supply price, especially when demand is doubtful or declining, as it would be among hundreds of small competitors. Indeed, the fear of trusts may be regarded as being due rather to the aggressiveness of their competition than to the fact that they exercise monopolies.

161. *The situation in the U. S.*—The attacks upon corporations in the United States may perhaps justly be attributed to the fundamental individualism of the American people. Their genius seems disposed rather to independent, individual action than to corporate or even co-operative action. It seems to have been so from an early period. The intense local patriotism of the several States rendered the Union hard to accomplish and after it was accomplished it seemed likely at one moment to break it up.

Industrially the earlier American enterprises were furnished with capital from abroad, and, eager as the people seemed to be for loans of money to exploit the resources of the country, they could not avoid dislike of their creditors. Capital in general thus bore a foreign aspect, and the relations between the representative capitalists and the small merchantry were strained from the beginning. The struggle between the large capitalist and the small one really began in the United States in the thirties of the nineteenth century; that struggle long ante-dated the appearance of the trusts.

It is not a little remarkable that the co-operative move-

ment which has taken such a hold of Western Europe has obtained a very slender footing in the United States and even in Canada. While undoubtedly the people of both countries have developed a remarkable power of common activity—that is, of spontaneous organization toward common ends—they appear to be averse to formal association of this kind. They seem to think that every man should have the opportunity to make the best of his powers, by combined or by individual action as he sees fit, and that formal combinations militate against this freedom of action. The American maxim, "Give every man a chance," expresses antagonism to those combinations whose operations appear to tend toward diminution of such chances.

162. *Land monopoly.*—An important case of alleged monopoly to which the above considerations apply is the ownership of land. Although it is true that a person who possesses a particular piece of land to the exclusion of everyone else, possesses a monopoly, the same is true of the possession of any commodity similarly commercialized. We have seen that the commercialization of land or the imparting to land of the mobility as regards possession, which is characteristic of other forms of property, succeeded earlier kinds of land tenure. These earlier tenures fell into decay or were abolished because of the decay and abolition of serfdom, because of the scarcity of agricultural capital and because of the difficulty of procuring free, hired agricultural labor. When immense areas of land were held by the State and granted to military chiefs or to other influential persons, such land was neither bought nor sold and was held as a monopoly.

Commercialization of land altered this and, so to say, placed land at the disposal of the highest bidder. The

alteration of the laws of inheritance and the adoption of the practice of paying for services to the State by means of money instead of by means of grants of land, have together brought about the commercialization of land.

It is true that this fact does not prevent land from being monopolized; but where all land owning is commercialized, there is nothing so hard to monopolize as land because there is so much of it. The owners of different areas of land compete with one another in the market for land as the owners of goods compete in the markets for goods. Real estate dealers advertise their town lots in western towns in the same way as manufacturers advertise their wares, and they employ similar devices in displaying the advantages of what they have to sell.

163. *Fluctuation of land prices.*—In all countries the history of the prices of land has shown that the price of land is subject to great fluctuation.

Between 1880 and 1890 the price of agricultural land in England fell sharply. Many farms in the chief agricultural counties were let at "peppercorn" rents—that is, for the mere payment of taxes upon them. Urban lands advanced between about 1874 and 1876, but since that period the prices have not advanced materially excepting in the business centers of the towns.

In the United States and Canada, similar fluctuations may be observed. The opening up of the western states led to the abandonment of farms in the eastern states as the attraction of the prairie provinces has led to rural depopulation and the fall in the price of land in Ontario.

Booms and subsequent collapses are familiar incidents in the cities of both countries. The acquisition of farm

lands at the normal prices for such lands and the building of a hotel by a shrewd and enterprising speculator who skillfully engineers it into the position of a fashionable resort, will induce demand for land in the neighborhood and will therefore increase its price. The stream of fashion may make the surrounding country very valuable to the owners of land, until caprice or interest turns the stream in another direction. In former days people went to Saratoga for recreation; now they go to Virginia Hot Springs, Atlantic City, Bar Harbor or Newport, Rhode Island.

Round every growing city new residential districts tend to develop, and these compete with one another more or less vigorously. The difference between the price of farm lands and urbanized land is represented by the cost of organizing it for its new use by drainage, by setting off allowances for streets, by advertising it, by interest upon the investment, and by the cost of administration. The result of these operations may be the sale of the land at a profit or, in the absence of demand owing to miscalculation or misfortune, the whole region may relapse into agricultural land or remain idle for years.

164. *Competition in land selling.*—Continuance of rapid growth of large towns cannot be counted upon. It is true that land acquires a value through demand—in other words, through the settlement of a community upon it; but if the community does not settle or if it leaves the place of its settlement, demand and value alike decline. Much of the so-called site value of urban property is peculiarly liable to fluctuation owing to the caprice of demand. And at a street corner, which appears to offer a strategic point for the conduct of a particular business—a bank, a railway ticket office or the

like—changes hands at a price greatly in excess of the price of another part of the same block. Such a transaction is not due to monopoly but is due to effective demand of a special character. Cases frequently occur of owners of an advantageous site of this kind holding on too long and thus missing the market.

Cities and even countries compete against one another in the land market. Thus if a manufacturing firm, desiring to establish itself in Buffalo or Toronto, found that land was being held in both places at what was regarded by its advisers as an exorbitant price, it might be advantageous to purchase land elsewhere—at Toledo or at Hamilton—where land could be had more cheaply, provided the business could be carried on with equal advantage in the smaller city.

Cases frequently occur in which it is a matter of indifference to the promoters whether an industry is established in the United States or in Canada. In such cases the local factors play a large part—facilities for obtaining labor and material and the cost of the land. If, other things being equal, a suitable site could be obtained at a less price in Canada than in the United States, the industry would be established there. On the frontiers of the countries in Central Europe similar conditions prevail. A local land "monopolist" who insists upon exorbitant prices is a kind of scarecrow, frightening people away from his land and making nothing of it himself.

165. *Rates of interest affect land prices.*—There is a definite connection between the demand price for land and the rate of interest for money. When money is scarce and the rate of interest is high, the demand for land is slender because the speculative element is limited or eliminated. When the rate of interest on loans upon

the security of land rises, some holders of land must sell, if they can, and others, who would otherwise have bought, will refrain from buying unless for purposes of their business they are obliged to buy.

So, also, when the rate of interest falls, the price of land where property in land is mobile tends to rise. The phenomenon of an advance in the price of land consequent upon a fall in the rate of interest has been illustrated on a large scale in Egypt. Prior to the British occupation the rate of interest was very high, most usurious rates being customarily exacted, with the bastinado as a penalty if the amounts due were not paid. Under the Egyptian régime, the price of land was low, partly owing to the instability of the government, but more largely owing to the high rate of interest which deterred borrowing for the purpose of purchasing land, and which induced the owners of capital to refrain from lending for long periods. The International Tribunals and, later, the Egyptian courts of law, supervised as the latter were by the British Government in Egypt, put an end to the bastinado and to usury. The rate of interest fell to normal amounts because abnormal rates could not be recovered and therefore would not be paid.

One of the immediate consequences of the fall in the rate of interest and of the increased stability of the government was an increase in the demand for land and a rapid increase in the price. There was a furore of land speculation in Cairo; but a more important incident was the increase in the value of agricultural land coupled with its increased productivity owing to the control of the Nile waters by means of the great engineering works erected by the British Government. The position of the land-owning fellahin was greatly improved; but the position of the landless fellahin was not so obviously

altered. He found that the price of money had fallen, but the price of land had risen to a greater extent. His annual payment on account of interest upon capital invested in an acre of land had therefore increased. The greater productivity of the land enabled him more easily to meet the additional charge than he would otherwise have been able to do, but there was little if any net pecuniary advantage.

The extensive speculation in land by farmers in the northwest of Canada has been due to the facilities for borrowing which the farmers have enjoyed, and to the relatively low rates of interest at which they could borrow. This condition led to rapid advance in the price of land so long as effective demand was sustained. With the rise in the rate of interest the increase in the price of land was checked. In the event of interest advancing still further, the price of land must fall.

The price of land, like the price of commodities, thus depends upon a series of complex causes acting through demand and supply.

166. *Changes in geographical relations.*—The great trade routes of "unchanging Asia" have retained their importance for many centuries, many of them retaining even their primitive character. Long lines of camels may be seen carrying merchandise from Peking through the Nankow pass and by Kalgan on the outer Great Wall of China into Mongolia for the Mongol traders, as Marco Polo saw them nearly seven centuries ago. Similar lines of camels may also be seen in the Transcaspian region, competing with the railways for distances of a thousand miles.

The trade routes of European traders have, however, altered many times, and alterations have sometimes imposed immense sacrifices. In the prime of Venice her

traders conducted a large part of the traffic between Persia, India and Europe through Asia Minor. The discovery of the Cape Route to India diverted the major portion of Venetian trade to Lisbon and London, while Cape Town became an important strategic point. The opening of the Suez Canal did not revive Venice, but it gave a new strategic importance both in a mercantile and in a military sense to Egypt and to Gibraltar. Although France built the Suez Canal, Great Britain profited by it to the greatest extent. Her hold on India was strengthened and her trade with that country, with China and with Australia and New Zealand was greatly facilitated.

The whole range of prices of the products of these countries and of the goods consumed by them was altered. Trade which was formerly periodical became continuous. The voyages no longer depended upon the monsoons. The increasing velocity of the returns to capital, which the shorter route rendered possible, enabled larger and more powerful vessels to be employed. There was a more eager competition for an enhanced trade and freights were reduced in consequence.

The effects upon prices extended not merely to their amount, but extended also to their fluctuations. An increase of the demand in the Bazaars of India, for example, could not under the former conditions be felt in Europe for months. After the opening of the Suez Canal and the establishment of numerous lines of fast steamers between Europe and Bombay, goods might be ordered from India and delivered within about one month. The whole fabric of Eastern trade was altered.

Scarcely less significant was the rounding of Cape Horn and the development of European trade on the Pacific slope of South America. The opening of the

Panama Canal is certain to produce complicated reactions. Much of the external, and perhaps some of the internal, trade of the United States must be affected by it. Its influence upon the price of grain in Europe, owing to the diminution of freight rates between California, British Columbia and Europe, may result in the entrance into the European competitive market of grain which at present cannot be shipped there. If this occurs the price should be less than otherwise it would have been.

CHAPTER VII

MONEY AND CREDIT IN RELATION TO PRICES

167. *Expansion and contraction of credit.*—When for any reason credit expands, more capital is available for industrial purposes, more people are employed, more wages are paid. Consequently, demand for commodities increases and prices tend to advance. When for any reason credit contracts, people refrain from making purchases except for immediate needs, loans are recalled and stocks of goods have to be thrown upon the market. The visible supply of goods is thus suddenly increased at a moment when demand is contracted. The consequence of these conditions is a fall in prices more or less widespread in proportion to the suddenness, severity and duration of the crisis.

Contraction of credit may occur through anticipation on the part of the lending and investing classes of a deficient harvest or of a war, or it may occur because in the opinion of such classes speculation has forced prices above the point at which there can be sustained demand; or credit may be contracted merely because it is more profitable under the existing conditions of the money market to hold highly liquid rather than less easily realizable securities. Expansion of credit occurs when the process of contraction has obviously gone too far, when unemployed funds accumulate in the hands of investors and when their incomes fall in consequence. When credit contracts, people begin to hoard money, and they let it pass out of their hands again as the rate

of interest for urgently demanded funds gradually advances.

168. *Effect of quantity of money in circulation.*—The rôle of money in the process of exchange and the position acquired by the precious metals in the category of money have already been discussed. The demand for money for purposes of exchange and the demand for precious metals is as real a demand as that for any commodity in the category of commodities. Some gold and silver are demanded for various purposes in the industrial and fine arts—photography, dentistry, jewelry, medals and the like—and some for the manufacture of coins, either immediately or potentially. If all transactions were settled by means of cash payment in coins, it would be clear that the larger the volume of trade—given a certain rate of movement of that volume—the greater amount of coins would be necessary for the movement of trade. When the conditions are as assumed, and there occurs a shortage of currency, trade is impeded from that mere fact because exchange is rendered less easy. In so far as the actual conditions approximate to the conditions described, it comes to be very important that there should be sufficient currency on any given occasion to enable the required payments to be made.

169. *Periodical payments.*—In Scotland rents of houses and of some lands are customarily paid at the two half-yearly terms of Whitsunday (June) and Martinmas (November). It is usual for the Scottish banks to withdraw from London, immediately prior to these term days, not less than from $10,000,000 to $15,000,000 in gold in order to provide the currency necessary for anticipated payments. The gold is used in circulation only to a small extent; it serves chiefly as the basis for the issue of the bank notes which are employed for the

payment of rents. When these notes return to the banks, as they do in the form of deposits within a few days after the term day, they are cancelled and the gold is returned to London.

Every week, or every fortnight, according to the custom of wage payments, large industrial concerns everywhere withdraw from the banks coins and bills which are payable in coin on demand, for the purpose of paying wages. The use of checks or drafts on demand upon the banks has been widely extended of recent years; but unless the person to whom the check is given keeps his account at the same bank as the drawer of the check, the settlement between the banks concerned takes place instead of between the drawer of the check and the person to whom the check is payable. In such a settlement there are claims and counter claims which are customarily set off against one another in the clearing houses, but the balance, whatever it is, is customarily paid in cash by the debtor bank to the creditor bank.

170. *Settlement of bank balances.*—Thus, no matter to what extent instruments of credit are employed to facilitate exchange, there are certain large balances which must be paid in cash. Such balances between banks may be, and customarily are, settled by means of the transference of instruments of credit in which the holder of funds common to all the banks is concerned or in instruments of credit issued by the Government in return for previous payments in coin or its equivalent.

In Canada, "legal tenders" for $1,000 each are customarily used by the banks in this way, fractions of this amount being paid by checks on the Bank of Montreal against deposits previously made in that institution. In London the clearing house balances are settled by checks upon the Bank of England, where all bankers who use

the clearing house have accounts. In New York and elsewhere the process is similar, the clearing house settlements being made in actual cash or in some highly approved and immediately negotiable instrument of credit.

171. *Gold required for international trade.*—The internal trade of a country always greatly exceeds its external trade and therefore the amount of currency which is required within the country is always much greater than the amount required for the conduct of its export or import business. Yet the latter amount in the case of each of the great commercial nations is very large.

In international trade, instruments of credit are used largely, but, notwithstanding the economy in circulation which the use of these documents implies, there remain large balances which cannot be settled otherwise than by the transference of gold. When credits in favor of the United States and Canada accumulate in the autumn after grain shipments have begun, there begins as a rule (although not invariably, see page 174) what is known as the "autumnal drain" of gold to America from Europe. The amount of the gold shipped varies in respect to the grain shipments, and also in respect to other simultaneous debits and credits, but it is usually a factor of considerable moment.

If we were to suppose that so much as ninety-eight per cent of the aggregate amounts involved in all transactions, domestic and foreign, of the great trading nations, are settled by the transference of credits through the use of credit instruments (and this proportion is probably not far from the actual conditions in certain of these countries), we should still have to suppose that two per cent of the enormous total would demand gold or silver for settlement. It is clear then that the greater the volume of business and the greater the number of

transactions, the larger the amount of gold and silver which will be necessary in order to conduct them within a given time.

While it is true that coin is economized to a greater extent than ever it was, it is true, also, that capital is transferred with greater velocity than ever it was. If, for instance, a wholesale trading house turned over its capital once a year in a given number of transactions, and owing to increased trade at another period turns over its capital twice a year in twice the number of transactions, it is clear that currency facilities of one sort or another will be necessary to an extent at least approaching twice the amount formerly necessary.

172. *Money in circulation affects prices through credit.*—Notwithstanding the influence of credit, it is clear, therefore, that the quantity of the precious metals in circulation as money is not a negligible factor. The influence upon prices of an increase or a diminution of the amount in circulation is, however, neither immediate nor direct. The influence is indeed conveyed through credit. When the banking reserves are re-enforced by receipts of gold, credit expands, and when they are depleted by withdrawals of gold, credit contracts. The expansion of credit induces increase of demand and increase of demand induces advance of prices, while contraction diminishes demand and induces fall in prices. In this indirect way an increase in the quantity of the precious metals available for use as money induces an increase of prices within the area which is affected by the expansion of credit and a diminution of that quantity has an opposite effect.

The "autumnal drain" of gold from Europe produces, other things being equal, a restriction of credit there and the receipt of the gold in America produces, other

things being equal, an expansion of credit on this side.

There are numerous historical examples of the effect upon prices of considerable increases in the supply of gold. For example, after the new supplies of gold from California and Australia in 1849-1851 began to reach Europe, credit expanded, and prices rose accordingly. Similar results were brought about when, after 1886, the yield from the South African mines was greatly increased, owing to improvements in the process of reducing the ore, and new gold in great quantities began to pour into Europe. The reserves of the European banks were substantially increased, especially those of the Bank of France and the Bank of England.

The accumulation of banking reserves caused the rate of interest to fall, industry was thus stimulated and the "long depression" which had lasted from 1876 passed away. The stimulus to industry through the fall in the rate of interest which was the consequence of the increased supplies of gold and the replenishment of the banking reserves which these new supplies provided, led to increased demand for which the increased credits afforded effective resources. Prices rose sharply from the low points to which they had fallen during the "long depression." It should be observed that only those prices which applied to goods the demand for which was increased by the relaxation of credit, were, strictly speaking, advanced in consequence of that relaxation which, in turn, was due to the increase of the gold reserves.

173. *The panic of 1907.*—The process of the replenishment of European currency by large new supplies of gold was arrested by the outbreak of the South African war. For three years the mines produced nothing. When operations were resumed the stream of gold con-

tinued. New sources of demand had meanwhile developed. Russia, Austria and Italy had already begun to rehabilitate their public credit by the increase of gold reserves against their fiduciary currency. Their importations of gold, arrested by the South African war, were now resumed to a greater extent than formerly. Exportation of goods was encouraged and importation checked by heavy duties. Immense exportation of wheat enabled Russia not only to rehabilitate wholly her depreciated ruble, but enabled her to accumulate an enormously greater stock of gold than was necessary for that purpose. The United States Government also adopted the policy of storing gold.

In consequence of these large operations, notwithstanding the greatly increased production, a scarcity of gold in relation to the currency requirements of a greatly increased volume of trade began to appear within the range of probability.

Then, as nearly always under similar conditions, the hoarding of gold became a considerable factor. Such hoarding always goes on especially in Mohammedan countries; and, when those countries enjoy prosperity in trade, and when it appears that gold is difficult to get, scarcity is regarded as imminent, goods are sold and gold is secreted, only to be brought out again when prices have fallen further and purchases may be made with advantage. Hoarding thus went on sharply in India and Egypt. Public and private hoarding, together with the increasing demands of credit for commercial and for speculative purposes, thus led to the crisis of 1907, which was partly a credit and partly a currency crisis.

174. *Fiduciary currency.*—The term *fiduciary currency* is applied to currency whose acceptance as money depends not upon the material of which it is made but upon the credit of the issuer—in other words, upon belief in the reliability of the promise to pay at a certain place on demand or at a certain date a specific amount in a certain currency material or its equivalent. The brass tokens which the Hudson Bay Company issued were redeemable by the company in goods equivalent to one-quarter, one-half or one whole standard beaver skin. These brass tokens were fiduciary currency because their acceptability was determined by the faith that the company would keep its engagements.

At the present moment Chinese barbers issue small bamboo sticks which entitle the bearer to their services. These sticks are sold and used because the single service of a barber is valued at a rate lower than the smallest coin in circulation—the "cash"—represents. Several of the sticks are sold for one "cash." There is here also an element of trust in the good faith of the barber.

175. *Paper money.*—Fiduciary currency, usually, although not invariably, consists of a document of paper or parchment upon which is written or printed the promise to pay. Such notes or bills have been employed since very early times. Ancient Chinese notes or bills of this kind are still extant.

It is clear that the reliability of the issuer of such documents must be subjected to repeated tests. So long as the tests are satisfactorily passed, the credit instruments will continue to circulate at their face value. If doubt is cast upon the reliability of the issuer, his issues may still pass current; but they will do so at a discount. If fresh issues are made while the issuer is still in default in respect to previous issues, the discount increases and eventually the issues become non-negotiable on any terms.

176. *An hypothetical case.*—If we suppose a country to be a closed economic system, that is, a system which has no contact with the external world, the issue of Government notes in such a country without any power of redemption would be possible provided the people had confidence in the stability of the Government. If, however, they feared the displacement of the Government and the repudiation by its successor of the obligations it incurred, the irredeemable paper of the Government would not be accepted even by its own subjects, and the Government would be unable to issue a forced loan in the form of irredeemable Government notes. If, however, confidence in the Government was such that the people supported a policy of this kind, and accepted Government paper instead of cash while the Government justified itself on the ground of national exigency, the paper would pass into circulation, but for domestic purposes only.

In such a case where such a policy is adopted there cannot be any doubt about the reactions which will take place. History affords numerous examples (notably the situation in the United States during the Civil War when forced currency was put in circulation as a desperate financial expedient). There would speedily develop in the market two prices—one price for payment in cash and the other and higher price for payment in Government paper.

Gradually cash would disappear. It would be hoarded because of its increased and probably increasing value (on the terms of the hypothesis it would remain in the country, but if the circle were not closed it would for the most part leave it) and paper alone would remain in circulation. It would be necessary to increase the issue of paper because of the disappearance of the

cash which had formerly been current and because the increase in paper prices caused an increased demand for the paper for purposes of interchange. Such paper could easily be printed and issued and the phenomenon of overissue would be manifest.

The rapid rise of paper prices would disturb all existing contracts, people with fixed incomes would be reduced to poverty and unless wages were advanced immediately upon every advance in the prices of the necessaries of life, industry would be dislocated, and the whole economic system thrown out of gear. Return to a condition of equilibrium would be slow, and would involve great sacrifices. The foundation of many great American fortunes was laid in the period of reconstruction after the war, but the personal sacrifices of the mass of the people were tremendous.

177. *Fiduciary currency in international trade.*—If, instead of a closed economic system, we suppose one which forms a part of the system of international exchange, we shall see at once that an irredeemable Government currency is impossible, and that since international balances must be settled in international money—in a commodity which is universally acceptable—it is necessary to maintain such a reserve of gold as will suffice to meet these international balances.

It may, however, be objected that international trade involves both imports and exports and that it is therefore merely barter. If imports and exports over a short period, say three months or six months, coincided precisely or even nearly, such would be the case; but they do not. Moreover, there is a constant movement of capital from one country to another, notably from Europe to America and from America to Europe. Every day on the Bourses and Stock Exchanges of Europe and the

United States, American securities are bought and sold. The payments for these securities have to be made.

For several years after the Civil War the United States borrowed heavily from Europe, these loans being transferred partly in goods and partly in gold. The funds so derived were expended in railways and in industrial enterprises. The accumulation of capital in the United States, especially during the period between 1890 and 1910, led to the repayment of some of these loans through the purchase of American securities in London and elsewhere. Meanwhile, however, owing to the development of American industries, large further obligations were incurred in Europe between 1900 and 1906. These obligations were intended to be of a temporary character, so great was the optimism of the time. The funds from these new loans were invested in highly permanent forms—in industrial enterprises and the like. The immense efforts to repay these obligations within the stipulated period were aided to a certain extent by the expansion of industry and by the accumulation of capital during the later part of the period (in 1905 and 1906); but the strain was too great, and from this and other causes, as already explained, arose the currency crisis of 1907—a crisis which may in general be said to have been caused by concentrated strain upon an unconcentrated system.

178. *Money and credit combined influence prices.*—It is thus very clear that the influence of the movements of credit and the influence of the movements of gold must be taken together. The greater the volume of credits necessitated by the greater volume of business, the greater the volume of gold which is necessary to sustain these credits. If the required volume of gold is, for any reason, not forthcoming, the credit system must

automatically contract. This automatic contraction is one of the causes of credit crises.

While it is true that by far the greater volume of the amounts involved in the interchange of commodities is transferred from the purchasers to the sellers of goods by the means of instruments of credit, it is nevertheless true that these instruments of credit would be valueless were it not for the fact that on demand or at a certain stated period they can be in turn exchanged for gold or silver. So long as confidence exists that this exchange can be effected, the instruments of credit may remain current, but the moment a breath of suspicion arises that the debtor, whether he is a banker or a merchant, is not in a position to meet his obligations, it becomes impossible for him to issue any more instruments of credit. Those which he has already issued come to be presented at maturity and as he cannot replace them by others, he must meet them in hard cash.

179. *Bank reserves.*—The amount of hard cash which is available for meeting credit obligations is thus not only *not* a matter of indifference; it is a matter of the highest importance. A banker, for example, who lends his capital and the funds with which he is entrusted by others, must preserve a certain proportion in which three elements are concerned. He may lend some of his money on relatively long dated securities, he may lend some of it on short dated securities or on call and he must keep a certain proportion of it in his safe. If he should not maintain a reserve in his vaults, his credit would disappear, because he might be unable to meet a legitimate claim for some of the funds entrusted to his keeping.

Reserves are thus necessary in the case of the individual banker and therefore of all bankers. In the United States and in Canada bankers customarily keep a portion

of their reserves in coin—gold and silver—and a portion in "legal tenders" or notes of the Government.

If the bankers are obliged to hold "legal tenders" and if the Government does not retain against these instruments of credit an equivalent amount of coin, the "legal tenders" are not in any legitimate sense a reserve, they are really a forced loan to the Government. The "legal tenders" can be considered as a reserve only if they are instantly exchangeable for coin or bullion.

If, then, the banker does not hold all his reserve in coin, the Government must hold in coin that portion of his reserves which is represented by "legal tender," otherwise the Government imperils the solvency of the banker, for there can be no compulsion upon his creditors to accept the "legal tenders" in lieu of cash unless the creditors can convert them into coin should they wish to do so. The creditors of the banker may be in Europe where "legal tenders" of the United States or of the Canadian Governments are simply looked upon as a means of obtaining gold. If they do not answer to this description they are valueless there.

While there cannot be held to be a direct relation between the quantity of gold in circulation and the range of prices of consumable commodities, there is, nevertheless, through credit an indirect relation. The smooth working of the intricate mechanism of international credit depends upon the instant availability of sufficient gold to meet any legal demand upon those who have the duty of settling balances. If, for any reason, such a demand cannot be met, friction is developed which must be more or less disturbing to the whole fabric of credit. Many remote causes may have contributed to produce the situation which led to inability to meet the demand, but it is the inability to do so which brings to light the

fact of the organic relation of the affairs of the defaulter to the general system of credit. If the defaulter is important, widespread doubts are cast upon the solvency of others. When Overend Gurney & Company failed and when Baring Brothers placed their affairs in the hands of the Bank of England, great shocks were given to credit. The beginning of the credit and currency crisis of 1907 was indicated by a few significant failures. Such failures did not cause the crisis. They were merely incidents in it.

180. *Importance of elastic currency system.*—No system of currency or banking is proof against all possible crises, but a crisis may be precipitated or the consequences of a crisis may be made more injurious or more enduring by defects in such systems. The maintenance of sufficient reserves and the automatic expansion and contraction of credit are the most certain means of avoiding acute crises and of mitigating their effects when they occur.

It is possible, however, to go to excess even in gold reserves. The reserves may be of such a character that gold deposited in them does not enter into or remain in circulation. When gold is hoarded by private individuals, it passes out of circulation during the period of hoarding. The Governments may hoard gold with the same effect as private individuals. The war hoard of the German Government, which it keeps in the fortress of Spandau, is not of great magnitude, but it is withdrawn from circulation so long as it remains there. No fiduciary circulation is issued against it and it does not act as a reserve for any but a military crisis.

The prosperity of Egypt and India have given the Mohammedans in these countries increasing resources, and as is their habit when they accumulate wealth, they

have hoarded gold. This hoarding has resulted in the diversion to Egypt and India of a large proportion of the annual production and consequently to a diminution of the amount of gold which it was expected would reach Europe, and would there be employed as the basis of general international credits. Fears of political disturbance and of war both in the near and in the far East have, from time to time, further induced hoarding throughout these regions. Meanwhile the demand for gold for international currency purposes has increased with the increase of trade.

A relatively high level of international prices indicates either abundance of gold or expansion of credit. If it is due to the former condition, it is likely to be permanent; if it is due to the latter condition, it is bound to be temporary. In so far as the expansion of credit has been due to the supposititious availability of gold for currency purposes when such availability does not exist, the expansion of credit must be as temporary as if it were not based on any supposition of that kind. In so far as the hoarding of gold has withdrawn the metal from reserves available as the foundation of credit, such hoarding contributes to the weakening of credit and therefore to the fall of prices.

CHAPTER VIII

EFFECT OF LEGISLATION ON PRICES

181. *Changes in monetary laws.*—Since the quantities of the precious metals available for use as money influence prices, the operation of monetary laws may, through affecting the quantities so available, contribute to a rise or fall of prices. If, for instance, silver is largely used in a country for purposes of exchange and the Government passes a law which removes silver from the category of legal tender currency, there will tend to be a rise in all prices stated in silver and a fall in all prices stated in gold. This condition actually occurred in 1876 after Germany had "demonetized" silver, and when the Latin Union (France, Belgium, Switzerland and Italy) had restricted their silver coinage. The effect of a law which would attempt to force upon a country an irredeemable paper currency has already been noticed.

While direct attempts on the part of Governments to influence the course of prices through monetary laws have generally been defeated by unforeseen reactions, all monetary laws influence prices more or less definitely. Laws on banking may, for example, by restricting or extending the kinds of security upon which a banker may lend money, influence prices by enabling the borrower to refrain from selling at a moment when by throwing his goods upon the market (a course which in the absence of accommodation he might have to adopt) the price might be depressed.

182. *Duties.*—The influence of an excise duty upon

the price of a commodity is in general to increase the price by the amount of the excise duty. Thus, for example, in the United States denatured alcohol, or alcohol which has been rendered noxious to the taste in order to prevent its consumption as an article of drink, is sold to scientific institutions for scientific purposes at a certain net wholesale price per gallon, no excise duty being charged by the Government. In Canada, on the other hand, the Government levies an excise duty upon this commodity no matter for what purpose or by whom it is intended to be used. The price, therefore, to scientific institutions in Canada is the net price of the alcohol plus the duty, making the price of precisely the same commodity in Canada five times the price in the United States.

Excise duties on commodities manufactured in a country are of course always supported by customs duties levied on the frontier. In the case of all commodities which are subject to excise duties, under normal conditions of trade, the consumer must pay all of the duty—customs or excise.

The case in respect to customs duties, other than those levied to support excise, is somewhat different. The following is the general principle upon which it may be determined in any particular case to what extent, if any, the customs duty is included in the price paid by the final consumer. It must be observed, however, that the principle is extremely difficult to apply because of the difficulty of following step by step the transactions by means of which any given commodity passes from the exporter in one country to the consumer in another. In some instances it is possible to follow with care the series of transactions, but the risk of error is considerable.

It need scarcely be pointed out that statements to the effect that customs duties are always included in the price paid by the consumer or that such duties are never included are equally valueless; in general, statements about the matter in a particular case are based upon impressions and not upon evidence. The principle upon which the evidence may be collected is as follows:

183. *Who pays the tax? How to test.*—Let us suppose, in the first instance, an atmosphere of perfect competition in which sellers compete with one another so strenuously that all of them are selling at the marginal profit—that is, at the profit below which none could sell and remain in business. Under conditions of that kind a tax upon the commodities which were sold would necessarily fall upon the buyers of the commodity. If these buyers bought to sell again and if they also were working upon a marginal profit, a tax upon the commodity would necessarily be passed on by them to the consumer. The price being the lowest possible (under the conditions, indeed, he would himself have the larger share in determining it), the consumer would be able to pay the tax and would have to pay it or go without the goods.

Let us suppose an exactly contrary case. In this case the atmosphere is not one of competition, but is one of monopoly. The manufacturer and seller of the goods in question has been able to monopolize the sale of the goods and has used his power to the extent that he obtains for the goods the highest price which the consumer can pay and live. If now a tax is placed upon such goods, it is obvious that the consumer cannot pay because he is, so to say, at his last gasp. He can pay no more for the goods than he has been paying. If the price rises, he cannot buy. The monopolist manufacturer can sell only if he pays the duty himself, that is,

if he continues to sell the goods at the price which he obtained previous to the imposition of the duty.

If, however, the customs duty on the commodity he manufactures is increased until it absorbs the whole of the profit, which the manufacturer makes in excess of what he could make in some other business, he will stop exportation and divert his capital.

If this were universal the tax would yield no revenue, the consumers would not consume and the foreign producer would not produce. The Island of Sumatra possesses a monopoly of the supply of a certain kind of pepper, the policy of the Dutch East India Government having been to concentrate the cultivation of particular spices in particular islands. For that reason, although Sumatra pepper competes with peppers of other varieties, those who prefer it, provided they are numerous enough to influence the market importantly, would have to pay the Sumatra price for it, which would, under the conditions, be higher than that of other peppers. If a new import duty were imposed or an existing duty increased upon Sumatra pepper alone, a portion of this advantage in price, although perhaps not the whole of it, would have to be foregone by the Sumatra producer—that is, he would have to pay the duty in the form of diminished price. If, however, the Sumatra pepper enjoyed no advantage in price, the monopoly notwithstanding, because it had to compete with other peppers of like quality, and if the duty were indiscriminately imposed upon all peppers, since the price would thus be arrived at by competition, the bulk of the duty would probably fall upon the consumer; only a small portion of it, if any, would fall upon the pepper growers.

Such extreme cases are rare, but all cases come between the two extremes. According as the element of competition or monopoly is dominant at each stage of the process of manufacture, transport and sale, the tax will be paid by one or other party to the transaction. In general, the incidence of the tax is determined by an explicit or an implied compromise. The tax may be partially paid by the consumer and partially by each one of the numerous persons through whose hands the commodity had passed, including the manufacturer. Such is the general principle upon which the incidence of customs duties may be determined in particular cases.

In estimating the effect of tariffs upon prices, much importance must be attached to the question of quality—the prices of unlike commodities ought not to be compared with one another—and importance should also be placed upon the condition of the market at the time the duty is imposed or a comparison instituted. A stable market in which a customary price has thoroughly established itself is very difficult to move either up or down by the increase or diminution of a tariff. On the other hand, a sensitive market will anticipate tariff changes, even sometimes erroneously.

184. *Speculation and prices.*—Speculation on an important scale is most observable in the highly organized markets (as in the cotton, wheat, iron, copper, silver markets), but it may be held as existing in all markets and in connection with all commodities. The essence of speculation is the purchase or sale of commodities not immediately required, or the refraining from purchasing or selling commodities the sale or purchase of which is not immediately indispensable.

In fact, all buying and selling which is not merely from hand to mouth is, in the strict sense, speculative buying and selling. The farmer who refrains from selling his wheat because he thinks that an advance in the

market is likely to occur, speculates in wheat in the same way that a miller, who buys weeks in advance wheat deliverable in September, speculates in wheat. A line may, however, perhaps be drawn between the genuine dealer in wheat, like the farmer and the miller, and the groups of persons whose business consists exclusively in buying and selling wheat which they have no intention of ever either receiving or delivering.

It may be observed, however, that the presence of such groups in the wheat market—groups, that is, who will always buy and always sell at a price—has contributed importantly toward the organization of the wheat trade. Wheat not only is in universal demand because a large proportion of the human race use it as a staple food, but it is immediately salable because, whether there is a demand for consumption at a particular moment or not, people can be found who are willing to speculate upon the future demand and to purchase immediately.

185. *Cornering.*—It is true that speculators attempt sometimes to control the supply by "cornering." This operation can be successfully performed only when owing to coincident increase of demand and restriction of supply the surplus of wheat over the quantity necessary for consumption is relatively small. A speculator with extensive credit may under such conditions secure for a time a certain position in the market, which may enable him to dictate terms to other speculators who are dealing in this surplus. Thus, the market quotations may for some days exhibit violent fluctuations, these fluctuations being due to the manipulations of speculators.

The great mass of transactions in wheat, however, which are conducted in advance of receipts and deliveries, are not as a rule touched by the speculative flurries. Yet, when speculation in the wide sense is considered,

there can be no doubt that market prices are influenced by the circumstance that sometimes the farmer withholds his wheat from sale and sometimes the miller buys greatly in excess of his immediate requirements. The 1913 Bank Act of the Dominion of Canada contains a clause which entitles chartered banks to lend to farmers on the security of their wheat, the object being to enable the farmer to hold his crop for an advance in price should he desire to do so. It is the practice among millers when buying wheat for manufacture into flour to sell futures at the market price at the time of purchase in order to protect themselves against a fall in the market when the flour is ready for it. This is known as "hedging."

When the population of Western Europe and of the United States was increasing rapidly in the latter part of the eighteenth century, and the beginning of the nineteenth, and when prices of foodstuffs were in consequence advancing rapidly, attempts to "corner" the market became very frequent and, owing to the accumulation of capital, some of them were more or less successful. Old laws were put in force against the practice of "cornering," but an even more effective check upon it was imposed by the formidable "meal" and "bread" riots in which the granaries of the merchants were plundered and the contents distributed, the principal inhabitants of the towns sometimes taking part in these riots. The chief protection against "corners" in the great staples must, however, lie in the increasing magnitude of the operations which would be necessary in order to manipulate a corner. It may be repeated that a "corner" can only be successful when the surplus is small. It is true that that moment is the time when a "corner" is most likely to cause distress by the restric-

tion of competitive selling in an abnormally high market.

186. *Regulation of price fluctuations.*—From the discussion of the complicated series of influences affecting movements of prices in this and preceding chapters, it is obvious that the elimination even of an important member of the group together with its reactions upon the others would not altogether obviate fluctuations, although such elimination might diminish the range and frequency of fluctuations. For instance, if the whole of the influence of currency movements upon prices were eliminated (to put the case so extremely that the condition would be impossible), there would still remain numerous other influences upon supply and demand which would cause both of these to fluctuate, and which would therefore cause variations in the relative value of commodities, however these values might be estimated. Nevertheless, the fluctuations of prices, which are directly or indirectly due to currency movements, are so important that regulation of these movements may be expedient in so far as such regulation is compatible with the economic laws which determine the movements of goods and of money as well as to a large extent the migration of people. If government regulation conflicts with these laws, it must fail. Earthquakes and floods may be taken into account and their effects sometimes minimized by appropriate precautions, but legislation against them is futile. Economic movements on a large scale, however little we may know about them, may be regarded as scarcely less invincible than other movements of nature.

187. *Cost of living.*—The question of the cost of living is discussed under the head of consumption, but here it may be observed that the movements of prices

are not uniform nor are they coincident. The causes of price fluctuations are so numerous that no uniformity is possible. There thus arise great disparities. People who have one commodity to sell find that the price has fallen, while in the same period the prices of the commodities they desire to buy have risen. When movements and prices are active these disparities are most numerous, and the disturbance of economic relations which they produce most pronounced.

If advances in prices were general, and if advances in wages, salaries and other means of income corresponded closely and immediately to such general advances in prices, there would be no question of the increased cost of living under the standard of comfort prevailing. Such a course of events does not happen, however. Wages must in general advance, but they do not do so immediately, and they may fall when the prices of the necessaries of life fall, but they do not do so immediately. In short, the curve of wages rises more slowly and falls more slowly than the curve of the prices of the necessaries of life. Wages are not necessarily affected by the prices of commodities other than the necessaries, although statements of the movements of prices include in general both categories of commodities. These points will be more fully dealt with in connection with wages and with the consumption of the working population.

188. *Trade cycles.*—While it is true that depression and inflation of trade are "states of mind," it is also true that these states of mind are induced by certain objective conditions. These conditions appear to recur with an approach toward regularity in their frequency. Thus, a period when demand is fully up to if not slightly in excess of supply, when industry is fully oc-

cupied, when prices are advancing and profits are increasing, is by general consent regarded as a period of brisk trade. When demand is greatly in excess of supply and when prices rise sharply, an increase of production follows, and when this production is increased to such an extent that it meets the demand and seems likely to be pushed beyond it, such a period is by general consent regarded as one of inflation. When supply is greatly in excess of demand, when prices fall, when profits decline, when production is reduced, when employment diminishes and credit shrinks, such a period is by general consent regarded as one of depression of trade. Clearly all of these conditions are relative to some preceding condition. Trade is brisker or is more depressed in relation to some antecedent state of trade in which it was not quite so brisk or in which it was not quite so depressed.

Efforts have been made from time to time to detect a more or less regular periodicity in these fluctuations, and for nearly a century the economic history of the commercial nations seemed to exhibit trade cycles, each cycle including a period of normal trade, one of inflated trade and one of depressed trade, which appeared approximately every eleven years. These cycles were found to be more or less nearly related to a similar periodicity of harvests, and this periodicity of harvests —normal, abundant and deficient—appeared to be coincident with certain changes in the solar envelope by which so-called spots in the sun exhibited periodically certain changes in form.

The uniformity of the coincidence of commercial crises and solar phenomenon has, however, not been maintained of late years. There may be several reasons for this. In former times the state of general trade

may have had a closer relation to harvests than it has at the present time, or the extension of the area in which a surplus of foodstuffs is produced may have resulted in more uniform total supply. A deficient harvest in one country does not necessarily mean a deficient harvest in all of the many grain-producing countries, and the improved means of transportation and of storage of grain have brought within the commercial network practically all of the grain-producing regions.

The hypothesis, on the other hand, may be unsound. The occurrence of spots on the sun may not be related as a cause either to harvests or commercial crises. It is obvious that even a century is too short a period to afford observations of a sufficiently extended character to justify other than provisional conclusions upon the question.[1]

[1] See Professor Stanley Jevons' revival of his father's theory, *Contemporary Review*, May, 1909, and Professor Chapman's review in *Economic Journal*, October, 1909.

PART III: DISTRIBUTION

CHAPTER I

PROBLEMS OF DISTRIBUTION

189. *Significance of distribution.*—Distribution in the economic sense of the word means the process by which those who contribute to production obtain their shares of that which is produced or of its value in the market. In discussing this question, as in discussing all economic questions of a like character, we are concerned, as students of economics, not with what ought to be the division of the result of production, but with the scheme of division as it actually exists. If we desire to examine critically any project for the alteration of the existing economic system it is advisable that we should understand, first of all, how the existing system works. It is expedient to do this even if we may determine to pass from the field of economics proper into the field of ethics or into that of politics in which ideal social systems may appropriately be discussed in their ethical and political aspects.

Our present business, then, is to learn in what manner distribution takes place under the influence of the existing economic system, imperfect as it may be. In the study of distribution, as in the study of production, we must have regard not only to series of cases of distribution in individual economic groups but also to the distribution of what has been called the national aggregate product. This has also been called the *rent interest*

earnings fund or the *national dividend*. It is, however, difficult to avoid ambiguity in phrases of this kind. The aggregate cannot be regarded as constituting at any particular moment a determinate fund in the common sense of the word.

The product of a simple productive operation exercised upon raw material which is the "gift of nature" to which no one lays any claim of ownership, may be the result of the labor of one person or of many. If the design and the labor are wholly due to the activities of one person there can be no question as to the right of that person to the enjoyment of the whole of the product of his labor, in a community which recognizes any right of private property. If, however, the product is the result of the activities of several persons working upon it together or successively, the respective rights of the several producers may be subject to dispute. If the product is of such a nature that joint labor is indispensable, it may be very difficult, in the absence of any recognized custom, to determine the respective rights, and it may be quite impossible to determine them upon any principle of ideal justice.

Primitive people whose surplus is usually very small and who under the best conditions are engaged in a more or less unremitting struggle with nature, have, as a rule, a keen sense of fairness in the mass, as well as a lively aptitude for securing their own interests. There thus arises in such communities a habit of balancing the bearings of disputed questions of labor and of ownership. Russian and Chinese peasants are conspicuous for the length and minuteness of such discussions. The writer on one occasion listened from ten in the morning until five in the afternoon to a group of Russian peasants discussing in great detail and with much power of analysis an economic question of importance in their village life; and in China, on more than one occasion, he has been kept awake by Chinese people discussing their business affairs with much eagerness in the street in the middle of the night.

190. *Difficulty of establishing an ideal system.*— Sometimes the question is insoluble and appeal is made to an external arbitrator; but more usually the disputants settle these questions among themselves on terms which satisfy everybody, or perhaps sometimes satisfy nobody. In the province of Archangel in Russia, for example, the division of land of varying qualities among peasants in such a way that each peasant has not an equal amount of land, but areas of land of equal productivity under normal cultivation, is conducted by the peasants themselves with marvellous skill, and without surveying instruments, and with general acceptance.

Apart from questions which may arise between the actual workers upon the simplest productive operation which involves joint action, there is the question of the social indebtedness of the worker. Not only is he indebted to the organization of his tribe or community for the opportunity to practise his art in peace, whatever his art may be, but he may be indebted for the design which he uses to a long succession of primitive craftsmen of his own or of other tribes or even of other races. In any strict distribution of the credit of production, these earlier workers would also have to be considered.

The demands of justice may be regarded as going much farther than the mere labor of the moment. Even in simple production individual labor is a contradiction in terms; all labor is social. The labor of to-day could not be what it is but for the labor of countless artificers of the remote past.

In complex production, where many persons are involved—some in the primary exploitation of the raw material, some in its transportation, some in the manufacture of tools for its exploitation, transportation and manufacture, others in the subsequent manufacture, others in the sale and perhaps many others who contribute the means of life to the workers while the long continued productive processes are going on—there are almost infinite possibilities of dispute as to the respective shares to which each member of these numerous groups is entitled. It is obvious that in long production processes, every member of the various groups cannot wait until the total utility of the product can be realized even by exchange. Obviously none of them could wait until, in the course of a long process of consumption lasting perhaps through centuries, the utility of the product could be completely exhausted. Some method of distribution therefore must exist by means of which the utility which is contributed by each contributor may be estimated, and the contributor compensated for that utility or useful service as it is valued at the time when the service is rendered—apart altogether from the eventual value of that utility or of the total of utility to which it contributed. Such a method emerged in course of time and its characteristics are those of the present economic system.

191. *The present system.*—Thus each member of the group makes his contribution to the productive process, receives the return to which he is regarded as entitled, gives his quittance, and passes into the unknown, while the product of the joint exercise of his functions continues to yield its utilities perhaps for many generations of consumers. The process on the face of it seems simple. It might be regarded as a perfect system if

each member of the group were concerned exclusively with securing the interests of the group as a whole, regardless of his own interests whenever these conflicted with those of the group. Under such a system there would not necessarily be equality of possessions, for if every contributor were rewarded according to his contribution as estimated by some economic Aristides, there might be inequalities because all might not have equal skill, equal physical force or equally continuous health. This inequality would result even if there were no inheritance of property, and even if the means of production—land and capital—were possessed and administered by the group as a whole or by representatives of the group in the interests of the whole.

192. *Economic equality.*—Assuming, for the moment, that economic equality is a desirable social end, it is clear that while the working of the social system as above described might make toward that end, it could not necessarily secure it; because if there were inequality of skill, for example, such inequality would reappear in the result of any method of distribution which was based upon an estimation of the value of the services rendered or upon the estimated value of the product.

The only system as yet projected which aims at economic equality is the system of communism. In this system, the factors of contribution to production are irrelevant. Everyone who can produce is expected to do so to the extent of his power; his needs are met from the common stock without reference to the quantity, the character or the value of his individual service or product. Such a system may be organized and maintained by mutual agreement or by force. Experience has shown, however, that it is very difficult to maintain, partly because of the variability of the human disposi-

tion and partly because the pitch of emotion, which the voluntary adoption of the system involves, is difficult to sustain. In cases where communism is imposed by compulsion, the desire for freedom sometimes becomes dominant and the system is compromised or even destroyed by flights or by revolt.

The most interesting and extensive communistic group of this kind at present in existence, is the group of Doukhobortsi or Spirit Wrestlers (a Russian dissenting sect), about 7,000 of whom form a strictly communist group residing partly in Saskatchewan and partly in British Columbia. Their existing communism is due partly to deliberate agreement among themselves and partly to the moral force and social pressure exercised by their leader. The communal character of their economy has not been invariable; it has been marked by many fluctuations. About 2,000 have abandoned the practice of communism and live chiefly in Saskatchewan in the same individualistic manner as the population round about them.

193. *Analysis of distributive process.*—We may now proceed to analyze the process of distribution in relation to the process of production which we have already examined. We have found that apart from the indispensable and contingent requisites of production, the factors of production are land, labor and capital. The expression land is held to include all raw materials extracted from nature and also natural agents such as water power. Labor includes manual, superintending labor and directive labor. Capital includes fixed capital in the form of buildings, machinery and like equipment, and circulating capital in the form of funds which are expended in periodical payments of wages and other current expenses and which in normal cases are returned

whenever the product is exchanged for money, the funds being again available for similar purposes.

The land and the capital may belong to one individual and the labor may be exercised by the same individual. In such a case the division of the value of the product would be subject only to curious interest; it could have no practical bearing. When, however, the land belongs to one person or to many, the capital to another group and when the labor is exercised by still another, maintenance of all of these persons and the continuance of the exercise of their functions come to be matters of supreme importance, because the continuity of the productive process depends upon them.

In Western Europe throughout the middle ages, and in Eastern Europe until the middle of the nineteenth century, it was almost universally believed that to leave the determination of the rent of land, the rate of interest and the rates of wages to unrestricted competition was to incur a grave social danger. Rents, interest payments and wages alike were, therefore, determined by public authority, either that of the State or that of the municipality. Survivals of public fixation of remunerations are to be found in the limitation of charges for certain legal services, in the regulation of railway rates, of payments for cabs, ferry services and the like, and, above all, in the statutory limitation of the rate of interest. The imposition of a statutory minimum wage would be an instance of reversion to medieval practice.

194. *Guilds.*—In addition to the regulative agency of the State there appeared also the regulative agency of the trade guilds acting either directly or through the municipality by means of the influence they exerted upon it. The whole conduct of business and, indeed, the whole conduct of life were subject to minute scrutiny

and to excessive regulation. No one could begin business of any kind or enter into a trade unless he had previously pursued the course of education prescribed by the guild to which his trade belonged, and unless he was accepted by the guild.

The story has often been related of how the improvement of the steam engine by James Watt ran risk of being at least delayed through the stringency of guild regulation and through the municipal power of the guilds even so late as the middle of the eighteenth century. Watt proposed to begin business in Glasgow as a philosophical instrument maker. The incorporated trade of Hammermen (the guild of master mechanics) objected to his doing so on the ground that the trade was really part of theirs, that Watt had not served a proper apprenticeship, and had not been accepted by them as a member. It was, therefore, impossible for Watt to establish himself in any part of the city of Glasgow which was under the jurisdiction of the municipality or the guild.

The precincts of the University were not in this position; and the professors of the University, among whom at the time was Adam Smith, offered Watt the use of premises within its walls. It was there that he devised the separate condenser and began the series of improvements by which he brought the steam engine from the laboratory table into the field of industry.

195. *Beginning of unrestricted trade.*—The general movement toward freedom, which may be said to have had its beginning in the eighteenth century, was characterized by resistance to direct or delegated control of economic relations by the State. As a part of this movement, serfdom was abolished and the peasantry became free. Burdensome restrictions upon the employment of artisans were removed and equally burdensome restrictions upon the sale of land and upon the employment of capital were seriously modified.

The effects of these changes in economic legislation and in municipal regulation of trade were numerous and complex, but important among them there were in Western Europe, the re-enforcement, and in Eastern Europe, the creation of a class of free laborers entitled by law to hire themselves wherever they could find employment and for whatever wages they could procure. At the same time, many of the guild restrictions upon trade ceased to be operative, employers might enter upon new enterprises without leave of the organizations which in the eighteenth century had been all-powerful. The general result of the movement for liberty was the beginning of an era of competition in practically all the fields of industrial and commercial enterprise.

The birth of the United States was almost coincident with the effective beginning of the European movement for political and economic liberty. Indeed in one of its most important aspects, the American Revolution may be held to have been an incident in the struggle between the newly arising capitalistic interests and the old. The industrial development of Canada did not begin in a serious sense until toward the middle of the nineteenth century. It was stimulated by the commercial movement of a subsequent epoch.

196. *Competition the result.*—The breaking down of industrial and commercial barriers was not accomplished without struggle, nor was it otherwise than very gradually brought about. Indeed it cannot be said even now to have been fully accomplished, for while old regulative methods fell into decay or were abolished, new regulative methods speedily came into existence. Yet,

in general, it may be said that the characteristic of the new period was an atmosphere of competition in which each member of each group of the contributories to production competed more or less effectively with every other member. In the course of this competition, the value of the services of each member came to be estimated in the same manner as the utility of the product was estimated in the market into which it was eventually brought. In other words, each member of each group was a seller of his services in the market to which his larger group belonged.

Thus, for example, as landownership became commercialized, the landowner whose land was occupied by a productive enterprise or who desired that his land should be so occupied or whose raw material was used by productive enterprises, came to be subject to the competition of other landowners possessing other lands of similar character or offering other raw materials of a similar description. So, also, the capitalist became a seller in the market for capital where he found competitors also offering capital for sale. The free hirable laborer, no longer rendered immobile by restrictive practice and legislation, became a seller of his labor in the open labor market, competing with other laborers offering similar services. In all of these markets the conditions as to competition varied from time to time. Sometimes in each competitive field the demand was in excess of the supply and sometimes the reverse was the case.

It should be observed, however, that while the removal of burdensome restrictions induced competition in fields where previously there had been little or none, competition did make its appearance even under the restrictive influence of State and guild regulation. The earlier

struggles of the small and the large capitalists and the earlier struggles of labor and capital show that at no time can it be said that competition was wholly absent. Regulations were not imposed without difficulty. Perhaps, especially under the most stringent regulations, flights of peasants and movements of artisans from one town to another in defiance of regulations were most frequent. State and guild regulations were thus successful rather in mitigating competition than is preventing it; but as such regulations became of less effect, competition increased.

CHAPTER II

PROCESS OF DISTRIBUTION

197. *Factors of production.*—We may now examine the factors of production in respect to the shares they receive in distribution in their respective markets. We shall afterward learn that the value of the product as determined in the market does not of itself afford any indication of the value attributed to any of the shares. Nevertheless the value of the product reacts upon the respective values of the services of the contributories, through the operation of demand in their respective markets. The market for capital, for example, is affected by the demand for additional capital which comes from an industry in which the price of the product has increased, and this also is the case in the markets for land, for raw materials and for labor. Some of these reactions will later be indicated more fully.

Since the co-operation of all of the factors in production is indispensable, a detailed examination in an inquiry into distribution may begin with any one of them.

198. *Productive industries classified.*—We may consider productive enterprises as falling into one or other of two classes: *first*, those which are organized by an individual employer or by a firm consisting of partners each of whom takes a more or less active share in the business and each of whom is responsible to the extent of his means for the obligations of the firm; and, *second*,

those enterprises which are carried on by joint stock companies with limited liability on the part of their shareholders. The individual employer in the *first* mentioned class may undertake the employing function himself or he may entrust it to a manager who may receive a fixed salary or a salary plus a share of the profits. If the employer undertakes the duties of manager he must be considered as earning the salary which he would otherwise have had to pay in order to acquire the services of a manager.

In the early part of the eighteenth century the typical individual employer was also the manager of his enterprise. He was a professional master of his craft. He had served an apprenticeship, and his was the skill which conducted his business.

Toward the middle of the eighteenth century, as the adoption of machinery became more prevalent, the skilled employer often found that neither his own capital nor his individual credit was sufficient to enable him to extend his business. Country bankers often came to his assistance and became "silent partners" in the business, providing the whole or the greater part of the necessary capital and taking a previously stipulated share of the profits.

As the general management even of manufacturing business became more and more an affair of bargain making, and of finance, including control of financial sources, the separation of function between the technical management and the business management in the strict sense became more and more common. The qualities demanded for the exercise of the technical function were not the same as those demanded by that of the business function and, although both were necessary, it became common for the business expert to employ the technical

expert. Thus those employers who were technically qualified and who at the same time had an aptitude for business frequently achieved great prominence and acquired great fortunes, while those who were not so endowed were obliged to sink from the position of mastership to that of employment. This process has gone far in the United States, where the heads of manufacturing businesses usually have had a legal, mercantile or financial rather than a technical training.

In the *second* class of enterprise the function of employer is exercised partly by the elected directorate of the joint stock company and partly by the general manager appointed by it. The service of the directorate is remunerated by fixed payments voted to the directors by the shareholders and the services of the general manager is remunerated by a salary fixed by contract and sometimes supplemented by a share of the profits or by a bonus voted to him either by the directors or by the shareholders.

The growth of company enterprise has been one of the most conspicuous economic features of our time. The company system is, however, not new. There were immense companies in the later days of the Roman Republic and in the earlier days of the Empire. In the middle ages the Hanseatic League, which in many important respects was analogous to a modern trust, controlled a large part of international trade. In the sixteenth, seventeenth and eighteenth centuries a large part of the business of every country was controlled or conducted by mercantile companies with state charters.

199. *Large corporations.*—The large company with numerous shareholders, numerous estates in land, large capital funds, numerous productive enterprises, and relations with interlocking banks, and practising more or less remorseless competition with individual traders and manufacturers and with small firms, has possessed itself of a large part of modern business. The reasons for this development have already become apparent. They lie partly in the necessity for large accumulated capital, in order to provide the control of raw materials and the machinery of modern industry and partly in the increased economy of manufacture under wholesale conditions.

The continuity and scope of an industrial enterprise is always more or less in peril when its success depends upon the skill, prestige and health of one person. Embarrassment may readily ensue in the event of the sickness or death of an employer who conducts his own business, and who has no one trained to take his place. The transference of a business to a joint stock company is thus a measure of insurance for its continuity and expansion. Moreover, the provision of additional capital by a small number of individuals becomes, after a certain point, a matter of difficulty. Such provision is often greatly facilitated by the division of the risk and of the profit among a large number of persons. Banks and other creditors frequently insist upon the formation of a business into a joint stock company for these reasons. The abundance of technically skilled persons on the one hand and the abundance of free hirable labor on the other, have also contributed to the growth of the joint stock company; and as the position of the small employer becomes untenable because of the effectiveness of the competition of the company, he becomes a competitor for employment in one or another of the sections of the labor market.

One of the consequences of company promotion is the union of two or more industrial or other enterprises into

one company for the purpose either of uniting the forces of competitors in the same market, and so limiting competition, of controlling the sources of supply and raw materials, of economizing in the expenses of management or of getting the goods to the market by means of advertisement or otherwise. By combinations of this kind production may be controlled and overproduction within the limits of the operations of the company avoided.

The combination of two or more private firms in one joint stock company may lead to the abandonment of a plant which in the combined enterprise has been found to be obsolete or unnecessary. When the United States Steel Corporation was formed many plants were "scrapped" because they were regarded as superfluous.

Further pursuit of such a policy in the combination of companies either by absorption or by alliances of a more or less formal character has led to the building up of what are known as Trusts. These united companies, some of which have reached gigantic proportions—especially in the United States—have been of late years not only conducting a large proportion of the domestic trade of the United States, but have been entering very largely into foreign trade. The operations of the Standard Oil Company and of the Tobacco Trust are practically world wide. Some of these Trusts have become in effect huge international combinations.

200. *Effect of large enterprises.*—The result of the growth of large capital, when placed at the disposal of employers, has in all ages been the same. It has always led to a struggle between the large and the small capitalists and between the large and the small employers. This struggle became very acute in the sixteenth and seventeenth centuries, and it has again become very acute

in the present time. The struggle of rival capitalist interests was inevitably carried into the field of politics, each interest endeavoring to enlist the State in aid either of its defence or of its aggression. In all of the historical cases, the struggle has not been a purely economic one. The small merchants have always enlisted on their side such democratic sympathies as the times afforded, while the greater merchants and the large companies have been able in general to enlist upon their side the influence of the governing classes.

201. *Employer's position in process of distribution.*—The individual employer or the privately organized firm embarking in an industrial enterprise, either uses already accumulated capital or purchases that capital on more or less remote terms of payment from some other person, firm or group of persons. In any event, the *entrepreneurs* either exercise the function of capitalists or they arrange with others to do so. They go into the market for capital and buy it on certain terms. These terms will depend upon the conditions which affect the money market at the time and they will depend also upon the individual credit of the *entrepreneurs* or enterprisers and upon the estimation which the market makes of the likelihood of the success of the enterprise.

Similarly the enterpriser negotiates in the market for land. He selects a site which he thinks will serve his purpose and if he finds that the price asked for it is more than he feels justified in paying, if he fails to bring the owner of the land to his terms or near to them, he will take a less suitable but a less expensive site. He will either purchase the land with a portion of the capital which he has procured (a usual case in the United States and in Canada) or he will lease the land at a specified rent per year for a certain number of years (the usual

case in Great Britain and in Continental Europe). In either case he will either exercise the function of landowner or he will allow someone else to exercise it, paying him the market price for his services.

The enterpriser will then proceed to arrange his staff of employees by employing superintending labor and manual labor; first, in order to erect the necessary buildings and to install the necessary machinery and, then, after the purchase of the necessary raw material, to carry on the process of production for which the factory (or other industrial establishment) has been designed.

The enterpriser has now expended all his fixed capital and a portion of his circulating capital, and he has thus incurred certain periodical obligations in respect to the payment of interest. He has also incurred certain periodical obligations involving the payment of an additional amount of interest in respect to the capital he has invested in land or he has incurred obligations in respect to the payment of rent for the land upon which he has built his factory. He has also entered into certain contracts for the raw material and for the superintending and manual labor necessary for the production of the product he intends to manufacture.

202. *How result of production is distributed.*—When the finished product makes its appearance he sends it into the market and he encounters the chances of that market. He offers an addition to the former supply; if the supply otherwise has remained the same while the demand has not altered, he may be obliged to accept a price lower than that of the previous market unless he can stimulate demand to such an extent as to cause an increase of demand and thus to cause maintenance of the price. As he sells his product and as he is paid for it, his depleted fund of circulating capital is restored; as

he continues to produce, his fund is depleted again, and again restored and so on.

If the total yield from the sales of his product just equals the expenses of production including interest upon capital, rent, purchase of raw material and wages for superintendence and for manual labor, he will even then not have been able to secure the continuity of his business. In addition to the net return as above indicated, it will be necessary for the enterpriser to have secured out of the total value of his product as realized in the market, sufficient to pay the taxes levied upon him by the state and by the municipality, together with an amount sufficient to pay the premiums upon a policy of fire insurance, and the premiums upon a policy of insurance against his liability as an employer for accidents which may happen to his workmen. It will also be necessary for him to provide for repairs to his machinery and for depreciation, and to provide for the creation of a reserve fund against the risks of bad debts and any other trade risks to which his business may be subject. Only after all these obligations of various kinds have been met out of the yield of his product in the market is he entitled to regard himself as having earned anything. If his business has yielded him only just sufficient to cover his obligations, he has neither salary nor profits for himself.

203. *Deficiency or surplus?*—If his enterprise does not yield sufficient to defray his obligations, he may nevertheless carry it on for a time, meanwhile obtaining fresh capital in the hope that eventually the yield will increase; but if he exhausts his credit before the yield does increase, the enterprise must come to an end.

On the other hand, if the yield over a certain period, say one year, is sufficient to cover his obligations during

that period, and to yield even a surplus, that surplus, according to the current system of employment, belongs to him. He may regard part of the surplus as salary—an amount sufficient, let us say, for his personal and household expenses—and part of it as net profit. This portion may be devoted to the creation of a reserve fund, against the possibility of diminution in trade or in the price of his product; or it may be devoted to the repayment of some of his borrowed capital (in which case he would to the extent which the amount represented, exercise the function of capitalist) or to the extension of his factory (in which case he would also exercise the function of capitalist).

204. *Employer's double function.*—In the course of his operations, the enterpriser or employer, as part of his function as organizer, has exercised the function of distributing the value of the product. He has exchanged the product in the market for its value in money, and he has distributed this money or a portion of it among the persons who contributed to the productive process. The individual shares of these contributories have not been determined in the market for the product, nor have they been determined arbitrarily by the employer. They have really been determined for him in the various more or less competitive markets into which it was necessary for him to enter in order to obtain the services and the material means whereby he conducted his industry.

205. *Influence of supply and demand.*—The employer is thus, neither as employer nor by design, a benefactor. He is engaged in an enterprise by which he expects to make not only a living for himself but even to realize an indefinite surplus. He is, in short, engaged in the pursuit of his own interest whether he is working up a small business or conducting a large one which had been

worked up to a position of magnitude by himself or by others from whom he acquired it. The other contributories to the production whose services he has organized are also engaged in the pursuit of their own interests, but their position is characterized by an element which is absent from the position of the employer. They render their services for certain definite periodical payments. These payments are due, whatever may be the gross or the net yield of the business. A fall in price of the product may take place, but rent, interest, salaries and wages are unaffected provided they have been previously stipulated. In each case there is, of course, risk of eventual loss, although the employer is liable in the first instance; but, in the case of salaried and wage-paid labor, the risk, owing to the frequency of the periodical payments, is usually relatively small.

On the other hand, in the event of an advance in price of the product or an increase in the gross or net yield of the enterprise, these payments still remain unaffected. If, however, such an advance in the price of the product or increase in the gross or the net yield of the enterprise takes place, even if the increase is due to economies in management special to the enterprise, there will be an inducement for other enterprisers to enter into business of a similar character. In consequence, demand for land, capital or labor will be diverted from other channels of demand, and the prices of these for the particular purpose in question will tend to advance. As the contracts for the supply of these factors run out, the enterprisers earlier in the business must also pay increased rents, interest and wages; and unless some other conflicting factor enters they will have to continue to pay increased rents, interest and wages until the net profits of their enterprises come down to the rate or near to

the rate of the profits of other industrial enterprises of the same general character. The reactions of the market thus tend to equalize profits of different industrial enterprises and to increase or to diminish rent, interest and wages according to the demand and supply of land, capital and labor.

CHAPTER III

PROFIT AND WAGES

206. *Source of profit.*—In the analysis of the processes of production and distribution which precedes we have seen how the employer, as employer in the strict sense, is an administrator and organizer. He is not a landowner, he is not a capitalist and he is not a manual laborer. He is a payer of rent, of interest and of wages to other persons who exercise the functions of which these are the remunerations, in connection with the enterprise which he (the employer) has organized. The primary business of the employer, as such, is to continue his enterprise and to adopt the measures necessary to that end. He must endeavor to obtain from the products of the enterprise enough to remunerate the various agents he has employed—the landowner, the capitalist and the laborer—he must provide the raw materials by purchase as they are required, he must provide for the repairs of his machinery as the parts wear out, he must set aside a sum for a depreciation fund to replace machinery that may have been wholly worn out or may have become obsolete.[1] When all of the charges upon his income have been met and when he has set aside an amount for his own

[1] In certain industries this depreciation of machinery from both causes is very great. During the period of active improvement of electrical machinery, for example, careful users customarily set aside about 12½% per annum upon the value of the machinery conceiving that it would be practically valueless in less than eight years not because it was worn out but because it was superseded by some new invention.

personal maintenance, the employer may find that there is a surplus or that there is a deficiency. If there is a deficiency, it will be necessary for him to economize in some way, otherwise the continuity of his enterprise, which is his first concern, will be compromised. If there is a surplus, that surplus may be regarded as net profit.

207. *How is profit brought about?*—If a method of analysis is adopted, by which the whole of the receipts of the employer, after he has paid the more obvious charges upon his total receipts, is described as gross profit, then the amount according to the above analysis, after the additional deductions which have been detailed, might be described as net profit. The question is: how does this profit arise? It may arise from one or the other of two main reasons. It arises either by design or adventitiously.

Profit is designed if the employer, through his shrewdness in making bargains for land, capital, labor and raw materials, and through shrewdness in making bargains for the sale of his product, or through economy in the management of his business, or by influencing legislation, enhances his gross income. It arises adventitiously, if from a change in market prices of capital, labor and raw materials which he buys, or in the finished product which he sells, he is able to diminish the cost of production of the commodity whose manufacture he has organized or to enhance the aggregate price he obtains for that commodity.

Shrewdness and activity may be pushed too far, that is, farther than is recognized as permissible by those with whom he transacts business. For instance, some part of the profit may be attributed to a too sharp bargain in raw material where the buyer has taken advantage of economic weakness on the part of the seller to

beat down the price below the current market rate; or a part may be attributed to a too sharp bargain with workmen or other employees. In the latter case the employer may be accused of exploiting them and of taking in profits what ought to have been paid to them in wages. Or he may be guilty of adulterating his product, or of some fraudulent practice of a similar kind. Such cases, no doubt, occur, but even if they were universal, which cannot be supposed to be the case, they would not account for that portion of the surplus which has been described as adventitious profit. Against this adventitious profit there must be set adventitious loss, which may occur even in cases where the most shrewd forecasts have been made, and which may occur through negligence or intentional destruction by employees.

208. *Profit distribution in joint stock company.*—The case of the joint stock company is, so far as the main facts are concerned, very similar, except that while the actual function of employer is exercised by salaried officials who are not necessarily paid in accordance with the yield of the business (although if their activities do not result in the return anticipated, they may run risk of discharge), the surplus, if any, is taken, and the loss, if any, is borne by the shareholders. These shareholders have ordinarily no effective share in the management of the business. In the case of large companies, where the body of shareholders varies with the purchases and sales of the stock in the market, they could not have any effective control. They, therefore, merely add to the function of capitalist (since by them or through their credit the capital is supplied) part of the function of enterpriser, the control or absorption of the profits and the sustaining of losses accruing in the enterprise.

209. *Employer's associations.*—We have considered

the cases of combination of interest of employers in joint stock companies and of the combination of these companies into trusts. There are, however, other forms of combination which may be entered into by individual employers without sacrificing their independence as such. Of this nature are employers' associations formed for the purpose of protecting the interests of their members by common action. Such associations have been formed with, in general, two objects. One of these is to watch or promote legislation bearing upon the interests of employers or to observe the administration of the laws affecting their interests. The other general object is to take common measures, where these are possible or advisable, for the protection of their members in respect to their relations with landowners, capitalists and laborers.

Under the first object the employers' associations consider alterations in the bankruptcy laws, in the tariff and tax laws, in the banking laws, in the immigration laws and especially in those laws which fall into the category of social legislation. Under the second object, the question of labor disputes is the most conspicuous.

Although the employers' association in one form or another preceded the trade union, it represents in a manner the combination of employers in answer to the combination of laborers. The collective bargaining of the laborers has as its counterpart the collective bargaining and the combination for mutual interests of the employers.

210. *Superintending labor.*—In modern industrial enterprise, the labor of superintendence has assumed a large place. As the use of complicated machinery has extended, as the organization of large bodies of men has become more common and as the operations of the

market (in the purchase of raw material and in the sale of the finished product) have become more intricate, the rôle of superintending labor has become more important. The technical heads of departments and the auxiliary technical heads in large enterprises form now, in the aggregate in all industrial countries, immense groups.

These groups occupy a position intermediate between the employers and the manual laborers; and the judicious selection of individuals for the exercise of the function of superintendence has become a matter of great importance. Superintending laborers are generally, although not always, educated in some branch of technology; they have more or less intellectual interests and are, therefore, less exclusively concerned with the commercial interests of the enterprise than their employers. They are also, owing to their rarity in the superior ranks of their respective professions, more independent of other social groups than either the employer or the workman.

211. *Salaries.* — Although superintending laborers have in some cases trade unions in the form of professional societies, these societies rarely act as combinations for the advance of salaries, because collective bargaining in cases of very divergent technical skill is not practicable. Salaries under such conditions are regulated partly by custom and partly by the market for superintending labor.

In the higher ranks, salaries are sometimes very high in relation to other professional employments because the opportunity of gain to a business through competent management is great, and the possibility of loss through incompetent management is also great. A large industrial combination was effected in the United States in 1903. The manager of the largest of the constituents

which were absorbed by the new company was appointed managing director of the whole at a salary in excess of his previous salary and for a period of five years. At the end of six months it became evident to the directors that they had made a mistake. They compromised with their managing director, paying him a large sum by way of compensation for breach of contract, and they appointed another manager at double the salary payable in the previous case. They found themselves worse off than ever. In three months the new manager involved them in losses amounting in the aggregate to ten times his salary for a year. He was called upon to resign and they offered a still higher salary, hoping by this means eventually to secure a thoroughly competent man.

The demands upon the occupants of such positions are very great. The qualities which are necessary are not easily acquired; sometimes they cannot be acquired on any terms of application. Those who are fortunate enough to possess the germ of the requisite qualities at the outset of their careers, and who will devote the necessary time to a study of the fundamental principles of business, may go far.

212. *Education of superintending laborers.*—The prospect of great prizes excites ambition and the junior ranks of the professional class tend to become overcrowded and, therefore, to be underpaid. In the more fluctuating branches, such as mining and railway construction, there may indeed on occasion be much unemployment in the professional class, because owing to the conditions of scientific specialization it is not easy to pass from one form of professional employment to another.

The provision of instruction for the professional classes

during the period of tutelage they must undergo in order to fit them for their work, has formed a heavy tax upon the educational institutions which have undertaken this duty. Scientific apparatus is costly and the provision of technically competent instructors is more costly than in some other branches of education, because of the competition for first-class men in the ranks of the technical professions. Currents of public opinion have alternately run in favor of assistance from the public treasuries of professional education, and against such a measure on the ground that professional employment is so profitable that those who enter it should defray the cost of their own professional education.

In general, a compromise has been effected. In the professional faculties in most universities and colleges, the fees are in excess of those charged in the non-professional schools, although they are rarely if ever sufficient to defray the whole cost of professional education. The objection that is sometimes heard that the interests of the professional class and those of the employing class are really identical, and that the educational policy which leads to the increase in the numbers or efficiency of the professional class at the public expense is injurious to the influence of labor is not valid, because labor has more to lose through an incompetent or numerically insignificant professional class than could possibly be gained by the absence of it. Moreover, the increase in numbers and the consequent probable proletarianization of the professional class must tend in certain groups of it to identify its interests with those of labor for good or ill. While it is difficult to organize labor when it becomes highly specialized, it is even more difficult to organize the professional classes because of the "water-tight compartments" into which they tend to separate,

and because of the individualistic habits of life and thought which are engendered by the absorption in professional interests into which members of the professional class customarily fall.

213. *Classes of manual laborers.*—All of the markets in which the contributors to production offer their services have certain features in common, and each of them has certain peculiarities. The labor market has, in common with the market for capital, the feature of division into sections, which, in ordinary conditions of the market, are non-competitive. In other words, the law of substitution does not normally apply to the relation of such sections.

At the base, as it were, of the labor market, there is the mass of general laborers, men, women and children, not specially skilled in any craft but available for the rougher manual or for light unskilled labor in many crafts. In this mass, also, there are usually some who have dropped into it from special handicraft, owing to changes in the crafts through the adoption of automatic machinery or otherwise, to their own inefficiency or defects of character or to misfortune. In this group the competition for employment is at all times considerable and is sometimes acute.

Above this mass is a plane of separate sections—each containing the craftsmen in special industries—carpenters, bricklayers, mechanical engineers and the like. While there is normally more or less severe competition within each section, there is little or no competition between the sections. Thus, for example, carpenters do not compete for employment with bricklayers, nor do watchmakers compete with mechanical engineers. When trade is stagnant in the superior handicrafts, craftsmen do not usually pass from one highly skilled occupation

to another, but if they find it impossible to secure employment in the trade in which they have been trained, they drop temporarily into some inferior employment where skill is not so specialized. At all times, certain occupations afford a refuge for men who, for various reasons have abandoned the trade for which they were originally trained. Thus, men of all trades become street car conductors, club and hotel waiters, teamsters, firemen, deck hands on steamships and the like.

In the sections of the labor market in which specialized skill is necessary, and with which there is little or no external competition, there is often acute competition within the section itself. For example, if at a particular moment there is a great demand for compositors in Buffalo or in Toronto, which are important centres of the printing trade, compositors will go to these cities to seek employment. If they go in excess or if the demand is only temporary, they will either have to go elsewhere or they will compete with one another for employment even if the wages be uniform.

214. *Uniform wages.* — The uniformity of wages which has been imposed by some trade unions and deliberately adopted as a policy by some employers, has mitigated this sectional competition and altered its character but has not removed it. An important mitigation has also occurred in those trades in which the number of apprentices is limited by agreement between the employers and their men. These measures have undoubtedly led to greater care in selection of men by employers. If they must pay equal wages to efficient and inefficient workmen, they will endeavor to eliminate the inefficient, and if they can have only a few apprentices, there must be no idle apprentices among them. It is probable that through the influence of trade unions in

this direction there has been some increase in industrial efficiency.

On the other hand, it might be argued that these measures have not tended to humanize the relations between workmen and their employers; and that the uniform wage results in the dismissal of the workman so soon as he is past his prime, while otherwise he might be continued at a reduced wage.

215. *Old age pensions.*—The adoption of a uniform wage seems to have as inevitable consequence the establishment of old age pensions, either by separate industries, groups of industries, or by the State; unless it is to be supposed that the uniform wage during the years of labor is sufficient to enable the normal workman to save enough to keep himself and his family after he has ceased to be worth the wages earned by him in his prime. It is true, however, that there are many industries in which the years of activity are so few that adequate saving is impossible, and an old age pension system, which would be applicable in such cases, would require to be given at so early an age that it could not be universally applied. The question whether recipients of pensions should be encouraged or even permitted to work has been much discussed in Great Britain since the passing of the Old Age Pensions Act.

The problem may be put in the form of a dilemma. If the pensioners are allowed to work, they compete in the labor market and reduce wages; if they are not allowed to work, the national aggregate is less by the amount of their product than it would have been had they been permitted to work. It is fairly obvious that the balance of advantage lies in allowing pensioners to earn wages if they can. There is another consideration: it is a doubtful policy to impose a direct penalty in the

form of compulsory idleness upon those who have a pension from the State.

216. *Labor organizations.*—In those trades in which specialized skill is not requisite, or in which the requisite skill may readily be acquired in a short time, the competition is most acute, the changes of personnel in a workshop or factory most frequent and labor combination in a trade union most difficult. Spasmodic attempts are made from time to time to organize garment workers (men and women), workers in box factories and the like. Sometimes the activity of the organizers has resulted in strikes and in the improvement of the conditions of labor or in increase of wages; but usually the casual and fluctuating character of these occupations and the diversity of nationalities have rendered permanent organization of the workers extremely difficult.

The system of an uniform wage which is indispensable in the maintenance of sectional trade unionism cannot be applied over the whole field of industry, and is, therefore, not an essential feature in a general labor organization. Such organization has indeed usually as its unifying influence some political programme because of the variation in economic programmes which exists in the ranks of labor.

217. *Difficulty of transporting labor.*—There are certain characteristics which are peculiar to the labor market. For example, while capital in the form of consumable commodities, or otherwise, is more or less mobile, labor is not very readily transported. This characteristic varies, however, in different races and under different conditions. There is, for example, a strong inclination toward migratory habits among the Russian people. The same inclination exists, though not to the same degree, among people of German origin; the French, on

the other hand, are reluctant to move. In many different parts of the world there are periodical migrations of great magnitude. About one million farm laborers migrate during the Russian harvest season, going southward from Central Russia and then travelling northward harvesting as they go, toward the regions of the later harvests. Similarly vast numbers of Italian peasants migrate to the Riviera for harvesting, and great numbers of Irish laborers cross annually to Scotland for the same purpose. So, also, farm laborers go from the maritime provinces and from Ontario to the prairie provinces of Canada for harvest, returning when harvest is over. In each of these cases distance is no barrier.

Apart from temporary migrations, there are the great permanent movements of peoples of which the settlement by Europeans of the two Americas and of Australasia are the most conspicuous modern examples. People even migrate from one new country to another. It is a matter of frequent observation that people who have with difficulty once uprooted themselves from a long accustomed home will have little hesitation in migrating a second time if they think it advisable to do so. Thus groups of German and other immigrants, both in the United States and in Canada, have emigrated and settled in the eastern portions of these countries and then after an interval have migrated westward or northward.

Nor does the extent of migration, except across the Atlantic Ocean, appear to have increased materially on account of improved means of communication. Throughout Europe, in the early middle age, the great difficulty lay in preventing people from wandering about, not in inducing mobility. Adam Smith's dictum that the man of all baggage is the most difficult to transport was really true only of the Scots and the French, the only two peoples with whom Adam Smith was familiar, and since his day it cannot be said to be true of Scotchmen.

This relatively great mobility of labor is, however, qualified by the circumstance that while capital is, as a rule, moved from one place to another by persons skilled in such movements, labor is frequently moved in great masses without intelligent direction. In northern countries, the harvest is short, the information about demand for labor is tardily distributed and it therefore frequently occurs that there is abundance of labor in one place while in another at no great distance there is scarcity. Sometimes laborers in their own interest refrain from communicating to others the fact of demand for labor, and the absence of organization among farmers prevents them from procuring even readily available supplies. This is particularly true of south eastern Russia during harvest time and it is to some extent true of the prairie provinces of Canada. Mobility or the absence of it may thus under certain conditions affect the rate of wages over a wide region.

218. *Labor cannot be stored.*—The second important special consideration affecting labor in its own market is that it is in the position of a perishable commodity. It must be sold when it is available, otherwise it is irretrievably lost. If there were any means of storing labor force in such a way that it might afterwards be liberated in any desired direction, the position of the laborer might be materially altered, provided he had himself control of the reservoir in which his labor was stored. The falling power of water is stored in this way, so also is electricity in electrical accumulators; but no invention relating to labor storage has yet been promulgated. Labor may be stored in the sense of being applied to

production of utilities which are kept in reserve, but this is not the same thing as storing the force which may be used at will at any time upon the production of any utility.

In the absence of an automatic mechanism of the kind suggested, the laborer must sell his labor, even in an overstocked labor market, because he must live. He may get for his labor barely enough to enable him to exist; but "half a loaf is better than no bread." This consideration is based upon the assumption, which indeed is very usually the fact, that the laborer is a laborer pure and simple; that is, that he is not in any sense either a landowner or a capitalist. It is assumed, further, that he is destitute of credit. This, however, is not always the case. The extent to which the small retail dealers relieve distress during times of crisis by extension of credit is very remarkable, and it accounts for the patronage of the large retail cash stores by the middle class rather than by the working class. The Truck system, a system by which the employer supplies his workmen with the commodities they consume, is very prevalent in the United States. It has long been prohibited by law in Great Britain.

Such being the case, the laborer is an urgent buyer of the means of life and he has no resources to offer in exchange excepting the labor of his head and his muscle. While, however, the laborer, as laborer, is in this position, he is not always laborer pure and simple. The elite of labor in all countries has its savings and investments in public securities or otherwise, yet it cannot be denied that the mass of the proletariat or landless working class—especially in Europe—is in the position characteristic of the laborer as such.

CHAPPTER IV

RATE OF WAGES

219. *Value of products and value of wages.*—We must now ask what are the causes which, in general, determine the rates of wages, and what are the causes which, in general, determine the share of the national aggregate product which passes into the hands of the laborer. The causes which determine in any market the value of the products which are brought into it for exchange are, as we have seen, very complicated. Each of these causes acts upon the labor market through the prices of commodities and through the demand for them.

220. *Nominal and real wages.*—While the workman naturally considers his wages high or low in respect to the pecuniary or nominal amount of them, the spending power which his wages afford constitutes their real amount. His wages are thus really high or low in respect to the quantity of food, clothing and shelter which they enable him to acquire. Thus the difference in wages at different periods or at different places cannot be expressed fairly unless we are able to set forth, not merely the amount in money, but also the purchasing power of that money in the commodities respectively consumed.

If, for example, the wages of a Chinese coolie are at one date equivalent to 100 pounds of rice for a certain period when rice is 4 cents per pound, and at another are equivalent to 133 pounds of rice when rice is 3 cents

per pound, his real wages, provided he consumes only rice, have advanced 33 per cent., although his nominal wage may remain unaltered.

The bare statement that urban wages are higher than rural wages is insufficient without the explanation of the difference between the prices of food, clothing and shelter in the respective areas. So, also, would be the statement that wages have risen during the past fifty years unless we are informed of the prices of the commodities in normal consumption, and of the rates of rents for house accommodation in relation to the normal rates of wages during the period. A curve showing the rates of wages thus means nothing unless it is accompanied by a curve showing the prices of the commodities which enter into the consumption of the wage earners whose wages constitute the data from which the curve is drawn.

221. *Efficiency of laborer.*—The determination of wages may be looked upon from two points of view. From the first point of view we may consider the rate of wages by the week or month or we may consider the total amount of wages for the year, idle time due to sickness, holidays, unemployment, etc., being accounted for. From the second point of view we may consider not the rates or amounts of wages in individual trades, but the wage bill of the wage earners as a whole, regarded as a portion of the "national" or "social dividend."

Under all conditions, the efficiency of the laborer varies widely, and uniformity of wage does not by any means imply uniformity of return to labor in production. If wages nominal or real were fixed arbitrarily by public authority at a uniform rate, the method of determining wages would appear to be simple, yet the return to labor in production of one group of persons

compared with that of another would exhibit wide variations. Under normal conditions of production, the proficiency of one group compensates for the deficiency of another.

We may regard the services of labor in production as being rendered by groups of varying efficiency. The groups of the highest efficiency normally move in a rarefied competitive atmosphere, and when they sell their labor, they have, therefore, an advantage over those of inferior efficiency who encounter more numerous competitors. Provided his efficiency is recognized by those who are in a position to employ him, and provided also there are no radical faults of character or habits which compromise his efficiency, the highly efficient worker in any field is in the position of a quasi-monopolist. If there is demand for his services he can drive a favorable bargain, although if there is no demand for the particular variety of efficiency which he possesses, it may remain unutilized.

At the other end of the scale is the least efficient group. Such a group is employed when industry is so brisk that every willing hand must be enlisted in its service. When, for any reason, industry becomes less active and employers begin to discharge workmen, the members of the least efficient group are normally the first to be discharged. During periods of industrial fluctuation, this group oscillates between employment and unemployment and between a self-sustaining status and the status of recipients of public or private charity. Whatever may be the state of industry and whatever the period, there is always such a group, and this group in this position may therefore be regarded as the marginal group —that is to say, that group whose utility as productive agents is the least it is worth while to use.

222. *Marginal wages.*—Over the field of industry there are numerous groups of this description, corresponding with the number of occupations. The labor of these groups is marginal labor. To put the matter concretely, an employer knows when he employs a workman that he will get at least the value in labor that is represented by this margin; therefore, he will be willing to pay a rate of wages equivalent to that value.

There will always be a marginal wage as there is always a marginal group, and this marginal wage will be just sufficient to attract into the industry the number required in it at any particular moment. If, in consequence of increased demand or otherwise, the price of a finished product advances, the manufacturers of that product will increase its production and they will therefore require more workmen. The reserve of labor may be, however, under such conditions low, and the supply price of labor may have advanced in consequence. But the demand price has advanced also because our employer is obtaining a higher price for his product and the marginal worth of labor to him has risen. He is thus able to meet the demand for higher wages from the workmen whom he already has in his employment and from recruits whom he may wish to employ.

It must be observed, however, that if any of the supply prices of other elements of production should advance, the power to give an advance to any one of them would be limited by the urgency of the claims of others. Thus, an advance in the prices of the raw materials might render an increase in production of the finished material uneconomical in spite of advance in its market price. The demand for labor might thus be checked and the marginal value of labor might not be altered in spite of the increase of the price of the finished product.

223. *Demand and supply prices of labor.*—Although the rate of wages paid to all employees need not be at the minimum rate, the demand price of labor will follow in its fluctuations the marginal value of labor and will, in general, approximate it. The demand price of all the labor in a factory cannot exceed the total value of all the labor, and that total value cannot be ascertained except by the process of estimating the value of the labor of the last and least efficient worker in each particular group.

Thus, if there were no trade union regulation imposing uniformity of wages, there would still be a tendency to uniformity—at all events among new employees—because of the estimate which the employer places upon the value of the labor of the last increment which he adds to his labor force.

The demand price of labor is thus that amount which will be just worth the while of the employer to pay to the last man whom it is worth while to employ in a particular kind of labor, and in the then condition of the market. The supply price of labor is the price which, from their point of view, the laborers fix as their estimate of the value of their labor, and, so far as this supply price is coincident with the demand price, labor will hire itself and be hired. When the supply price rises because of the scarcity of laborers or otherwise, the demand price may or may not rise, because the value of the labor may or may not have risen; but if the demand price rises, it will, of course, draw up the supply price after it. Although all wages are not at the margin, the competition of wage earners seeking employment, whenever such competition is effective, will tend to equalize wages in any particular industry; and the competition of employers for labor, where this is effective, will have the same result in all industries, subject

to the qualifications of competition formerly mentioned.

The rate of wages appears thus to depend upon the productivity of labor; but this productivity will depend in turn upon the value of the services of labor as estimated in the labor market, reacted upon, as this market is, by the market for commodities. The rate of wages is determined by means of a bargain between the employer and the wage earner; but the terms upon which this bargain is made, depend upon the conditions which have been described.

224. *Labor reserves.*—The above theory of the determination of wages rests upon the assumption of free competition between laborer and laborer for employment and between employer and employer for laborers. Certain qualifications must be made upon this assumption.

Competition is not always pervasive. Wherever the laborer can place a reserve price upon his labor and can work or refrain from working, he is in the position of withdrawing from competition with fellow applicants for a wage earning position if he choose to do so. This reserve may either be possessed by himself, in which case he is to that extent a capitalist, or the reserve may exist in the form of another kind of occupation to which it is possible for him, on occasion, to turn.

The occupation of independent prospector, which involves the existence of such a reserve, was resorted to in British Columbia to such an extent that in 1896 and 1897 it was exceedingly difficult to procure miners, and they could not be procured for a lower rate than the lowest rate at which a prospector might be "grubstaked" or supplied with the means of life by a speculator. Similarly, the existence of available homestead lands in the northwest of Canada, which may be taken up on very slender capital, acts as a reserve in respect to

wages, especially in the neighborhood of the homestead lands. A laborer will not work for anyone else for less than he thinks he could make for himself, if he were working upon his own land obtained gratuitously.

Another example of the same condition is the practice, common in the northwest of Canada, of homesteaders hiring themselves out for railway construction or for work upon farms other than their own. These men clearly have a reserve price upon their labor. A case of this kind in connection with railway construction in western Canada, in which a group of some five hundred homesteaders were concerned, resulted in a bargain in respect to a sub-contract being made between them and the contractor for the section which passed through their land. This bargain left the contractor no profit whatever. The homesteaders knew that they had to be employed; they were indifferent whether they were employed or not, and they, therefore, obtained the maximum price for their labor—obtained, in fact, the whole of the value of the product, so far as the contractor was concerned.

225. *Effect of population.*—While the laborer is in a chronic condition of urgency as a seller of labor, there are occasions when the demand for labor is such that there is a very small surplus of unemployed laborers. Wages under these circumstances tend to advance. On the other hand, the existence of a large reserve of unemployed laborers depresses wages and contributes to spasmodic employment. Thus, when the population of a country is growing rapidly, and when, therefore, the labor market is continually subjected to fresh accessions, the reserve of labor increases, unless the demand for labor for industrial enterprises increases in the same relative degree as the population.

If, owing to the increase of population, the reserve of labor increases, wages will not necessarily fall, notwithstanding the increase of population, nor will wages rise in consequence of a diminution of population, unless the demand for labor varies.

Wages may also rise or fall from causes altogether apart from movements of population. In Great Britain wages advanced with great rapidity in the years between 1870 and 1874 although the population was increasing at its normal rate. Germany has witnessed, during recent years, a remarkable growth of population simultaneously with an advance of wages.

Mere scantiness of population does not imply high wages, otherwise wages would be higher in the rural districts than in the towns, which is contrary to the fact. Nor does mere density of population necessarily imply low wages. Wages, therefore, may be said to depend upon the relation between the supply of and the demand for labor at a particular time and place; and the amount of supply will depend upon the population in general, primarily, but secondarily upon the reserve of labor or the amount of labor seeking employment. The demand for labor will emerge from the conditions produced by the numerous causes which have already been detailed as influencing the fluctuations of prices. The amount of the reserve of labor, or the available supply, will depend primarily upon the economic position of the people, and secondarily upon the influence of demand.

226. *Other influences on labor reserves.*—In a country where free grants of land are available and are susceptible of cultivation with little or no capital, the reserve of labor will consist of those who are unfitted for or who are reluctant to undertake the labor of agriculture. If there are relatively few of these, or if there

are none of them and there is no reserve, wages will depend almost exclusively upon the state of demand for labor for industrial purposes. If such demand is urgent, wages will be high.

In new countries this may be said to be a usual condition. There the reserve is low because agriculture and other extractive industries offer advantages which compete with those offered by industrial employment.

There is another case in which wages may be regarded as high. Such, for example, is the case of Iceland, where there is no industrial development and where the people are wholly occupied in attending to their own farms. There is no reserve of labor and no organized demand for it for industrial purposes. To induce an Icelander, therefore, to leave his customary occupation for personal service or the like, requires an offer of wages relatively high when the course of prices in the island is considered. Thus the rate of daily wages for a guide, for instance, amounts to about the equivalent of the value of three sheep.

If there is no customary demand for labor, or if this demand is small, there will be no inducement for the presence of a reserve of labor seeking employment and, therefore, local wages will be high.

It is true that the rate of wages is either customary or is the result of an individual or collective bargain; but the conditions under which this bargain is made must determine the character of it. If the competition between workers seeking employment is keen, the advantage in the bargain will, other things being equal, lie on the side of the employer. If competition among employers is keen, other things being equal, the advantage will lie on the side of the workers.

227. *Minimum and maximum wages.*—There is, how-

ever, a superior limit above which, under normal conditions, wages cannot rise. This limit is determined by the necessity of maintaining the reserves of capital for the continuity of production. And there is an inferior limit of wages which is determined by a similar condition, applied to the reserves of labor. The difference between the highest possible amount which may be paid in wages, and yet continue the production in the then state of the market for land and for capital, and the lowest possible amount which may be paid in wages, and yet continue the supply of labor necessary for production in the then state of demand in the market for goods, constitutes the range within which disputes about wages can take place. It is the interest of the workers to obtain as much of this margin as they can, it is the interest of employers to retain as much of it as they can. In both cases continuity—in one case, of employment, and in the other case, of production—lies in the background as an indispensable condition.

It is clear that the aggregate amount of this margin will depend upon the productivity of productive enterprises taken in the mass. If, for any reason, the productivity is inferior, as in the case of an inferior harvest, there will be less to distribute than if the productivity were high, as in an abundant harvest. Moreover, if the product is small, there must be a more acute struggle over it than if the product is large. When industry is highly productive, when demand is brisk and the value of the product is being enhanced by advancing prices, there is less reluctance to increase wages than there is to maintain them when prices are falling.

From the social point of view it is, then, important that production should be as great as possible—not in any individual products but in due proportions—in such

a manner as to supply the largest aggregate of utilities; in order that, on the one hand, the productive process may be continued smoothly and that, on the other, those who contribute to it should be enabled to continue at their maximum efficiency.

228. *Labor not sole determining factor in value of product.*—While all products are the products of labor, the value of the products is not due to that fact. I may spend a month in making an object which I regard as of high utility and to which I therefore attach a high value; but I may be wholly unable to find anyone who agrees with me either about its utility or its value. This is especially obvious in the case of works of art, about the value of which the widest difference of opinion frequently exists. Nor does their value, as determined by connoisseurs or as discovered at their sale by auction under conditions of competition, depend upon the amount of labor which their production has involved. A picture by Raphael fetches a high price in the market, not because Raphael labored upon it for so many days, a detail which cannot possibly be known, nor merely because the paintings by Raphael are few and cannot be increased in number, nor merely because of the high artistic excellence of the example in question, nor because Raphael was one of the great figures of the Renaissance; but because for these or, perhaps, for quite other reasons, many private collectors and the directors of many public museums who have the means to gratify their tastes, desire to add a picture by Raphael to their collections.

Innumerable painters whose skill was probably not greatly inferior to Raphael's and who, perhaps, labored infinitely longer upon their works than he did, have been totally forgotten and their works have been lost be-

cause the generation to which they belonged did not value them or think them worth preserving. There are, no doubt, at the present moment unknown geniuses whose works, worth next to nothing in the market now, will be hotly competed for by excited connoisseurs when some day a critic in whose judgment they have confidence pronounces a favorable opinion upon them. It will then be a question to whom the value is to be credited—to the artist or to the critic.

229. *Why distribution is not based upon product.*—That the laborer adds value to the product upon which he labors is, in the normal case, although not in all cases, true; but what the amount of that value is, is not determined and cannot be determined until the product passes into the market where it is eventually valued and sold, and even when this takes place, the value which is determined is the value of the commodity as a whole; the increments of value are not indicated. In those cases in which the production occupies a long time and in which the labor of many hands is employed as in building an ocean liner, for example, the value of the finished product as a whole affords no means for estimating the value contributed respectively by the designer, by the miner who took the iron ore from the face of the mine, by the railway men who transported it, by the workers at the furnace in which it was reduced, by those at the steel rolling mills where the steel was rolled into plates, by the rivetters who rivetted it into the form of a ship, by the carpenters and other artificers who completed the vessel.

Clearly an equal division of the proceeds among these various persons, some of whom contributed much and some little to the total result, would not necessarily be just; even if every one of them could wait for a year or more for the payment of their quota, and even if there were no other claimants for a share of the proceeds of the joint labor. Moreover, the value of the vessel does not depend exclusively upon the circumstance that a large number of persons labored in the production of it, but depends very largely upon the circumstance that a large number of persons desire to use the vessel when it is produced.

Thus, even if the laborers had free access to the means of production and if the raw materials out of which the vessel was constructed, and the tools which were used in construction were gratuitously placed at their disposal, some means would still have to be devised of maintaining the laborers while the vessel was being constructed. Clearly the vessel would not acquire its full value until it was completed, nor could the value be fully realized until years afterwards.

230. *Supporting labor during period of production.*—If a community whose economic system was characterized by thoroughgoing communism, attempted an operation of the kind suggested, it would be necessary for it to have previously accumulated a stock of food and clothing sufficient to subsist all those of its members who were engaged in the various and prolonged labors necessary for the construction of the vessel during the whole of the period which elapsed from the beginning to the end of that construction. In other words, they would have had to accumulate capital, because the means by which the various workers are subsisted during the operation constitute the capital involved in it. The vessel, when it was completed, might be utilized by the communist community or it might be sold. If it were utilized by the community the net saving of the hire of other means of transportation, whatever that might

amount to, would gradually enable the community to replace the capital expended upon the vessel and would thus enable it to undertake another similar enterprise and so on. The essential point is that, before the enterprise was entered upon, it would be necessary to possess the means of subsistence for the workers upon it, or it would be necessary, while it was in progress, for the other members of the community to support those who were engaged in the enterprise.

The city of St. Petersburg was built in precisely this manner, not by a communist society but by enormous numbers of state peasants who were required by Peter the Great to cut the timber in the forests, to bring it to the site chosen for the city, and to drive the piles upon which the city was subsequently built. While they were doing so, the peasants could not cultivate their lands and obtain subsistence, therefore thousands of other State Peasants were required to bring wheat and rye for their support.

231. *Voluntary association.*—Co-operation of this kind may be organized by a communist society such as we have supposed, or by means of forced labor as in the illustration, or by means of the voluntary association of numerous persons. A communist society is held together either by a high social ideal, or by some kind of force, moral or material; forced labor of enormous numbers of peasants is only possible under conditions of personal bondage; voluntary association is the usual means by which large enterprises of the kind suggested are organized.

But there must be some motive for the voluntary association. This motive is usually the pursuit of individual gain. Desire to make a living, together with avarice, appear to be sufficient to bring together at the

call of some person or group of persons, those who will be willing to render the various services necessary. Instead of waiting for problematical incomes from the finished vessel when it enters into the service for which it is destined, those who co-operate are willing to compound day by day or week by week for their share of the eventual product.

232. *Advantages of modern system.*—This system of compounding gives them a certain freedom. They can leave off working when they please, unless they are bound by agreement. They are not in the position of communists who must either remain members of their groups or forfeit their share of the accumulations made by the group and by them as members of it; nor are they in the position of serfs who must work at the call of their owner. They are free hired laborers, or they are owners of raw materials, or they are owners of liquid capital capable of being transmitted into any one of many required forms.

Modern industrial organization has many disadvantages; but one of its advantages is its voluntary character. Those who engage in it are, compared with those who engage in other known methods of organization, in the enjoyment of greater freedom. The essential feature of this organization is the voluntary supply of capital, on the one hand, and of labor on the other. Capital has no inherent power to compel the laborer to work; nor has the laborer any inherent power by means of a general strike or otherwise to compel the capitalist to supply industrial capital.

CHAPTER V

PRACTICAL LABOR PROBLEMS

233. *Labor combinations.*—Combinations of laborers for the purpose of collectively making demands upon their employers for improved conditions of labor, for higher wages or for resisting reductions of wages, are not new phenomena. Strikes and mass fights of laborers are known to have occurred in almost all ages.

The trade union, is however, an organization which dates not earlier than about the end of the eighteenth century. Even then it was upon a very small scale. Small local unions in individual trades were formed more or less surreptitiously. In the beginning of the nineteenth century such unions were found to be formed for "restraint of trade" and were, therefore, forbidden. From about 1830 several large general unions of all trades were formed successively, and some of them assumed considerable proportions.

It was not, however, until the third quarter of the nineteenth century when trade unions were permitted to register themselves in Great Britain as Friendly Societies that they were in any sense recognized as having a legal existence. From that time onward, the trade union has played a large rôle in labor politics, especially in Great Britain, where the proportion of working men who belong to trade unions is much larger than it is in

any other country. Indeed, except in the British Empire and in the United States, trade unionism in the English sense can hardly be said to exist.

There are, however, on the continent somewhat analogous bodies. These organizations are rarely purely trade organizations. They have generally as an important reason for existence, the promotion of some political propaganda although they have also certain economic characteristics. Because of their political aspects such organizations have generally, although not invariably, been discouraged and their activities have even been arrested by continental governments.

Soon after acquiring in some measure a legal status, trade unions in Great Britain began to promote the candidacy of some of their own number as members of Parliament, and they began to develop a Parliamentary policy. This policy related chiefly to the regulation of certain dangerous industries, such as mining, to the factory acts and the like. The trade union movement in the middle of the seventies of the nineteenth century was confined to a few of the leading trades and the union leaders in these trades determined the policy of the movement.

234. *Change in trade union control.*—The first serious invasion of their position occurred through the admission in 1876 of about a hundred thousand agricultural laborers into the Trade Union Congress. This invasion was followed in 1889 by the similar admission of the dock laborers. The second of these invasions marks a new epoch in Trade Unionism.

The admission of a union composed of casual laborers indicated a great change. The new recruits were represented by a group of remarkable men. Some of them were natural orators and all of them were enthusiastic

socialists of one or other of the numerous types of the socialists of that period. The influence of the older type of trade union officials then began to decline. But the full meaning of that decline did not make its appearance until 1911, when what amounted to a general strike was declared in spite of discountenance of the movement by the trade union officials. This event was indeed almost as much a strike against them as it was against employers.

Although it was evident that the syndicalist movement (see page 254) which had been developed in France and Italy had had some effect upon British Trade Unionism, the strike passed without any material resort to violence. It meant, however, the practical passing of the control of the labor movement in Great Britain out of the hands of the older group of trade union members of Parliament.

The so-called Labor Party cannot be held as yet to form a homogeneous group; and its influence upon the movement is by no means a dominant factor. The labor movement as a whole is undoubtedly still largely influenced in Great Britain and to a problematical extent in the United States by the powerful unions of the larger trades—the engineers, the unions of miners, railway servants and the like, and these in general adhere to the older methods. They have large funds and are not usually in favor of strikes, excepting as a last resort. Recent legal decisions which have rendered the funds of the large unions liable to attachment, have had the effect of diminishing the prestage of the more wealthy and conservative unions and of thus contributing to the more unstable and aggressive syndicalism.

It would appear, however, that the strike, especially the General Strike, or simultaneous strikes of many

trades, does not inspire the confidence in its success as a weapon, which at one time it inspired. Trade Unionism in Great Britain may thus be said to have passed through one of the phases of its history without as yet having given any decisive indication of the character of the next phase. This delay may probably be attributed to the fact that during a period of extraordinary activity in manufacturing industry, trade unionism and labor agitation are in general quiescent. It may be expected that the next industrial crisis will exhibit some fresh features.

235. *Strikes.*—The trade union may be regarded as representing an important and useful phase of the labor movement. The habit of organization and the necessity of subjecting individual interests to the interest of the group have had important moral effects; the economic effects are less certain.

The trade union to a limited extent, by limiting the number of apprentices and by means of strikes, may enable its members to place a reserve price upon their labor. If the employer does not agree to terms proposed by or in the interests of his workmen, and if the branch of handicraft to which they belong is organized in a trade union, a strike may occur. During the strike the unemployed workmen receive strike pay which is usually one-half or less than one-half of their normal wages.

If the finances of the union admit of a long struggle and if the spirit of the strikers is such that a long struggle can be maintained, the men will probably gain their point and will receive an increase in wages. They will only do so in general, however, if the conditions of the industry warrant an increase, and they will not do so if there has been overproduction of their product and if

manufacturers have large stocks of which they are desirous of disposing.

In any case, the strikers will have depleted or exhausted the funds of their union and, perhaps, compromised the solvency of their sick and funeral benefit funds and the like.

236. *Strike failures.*—While strikes are sometimes inevitable, they are always very costly, both directly and indirectly to the workers themselves. Under favorable conditions, when demand for labor is active, the pressure of a united demand, supported by the influence of a large union, may undoubtedly hasten or even occasionally force an advance; but in a falling market, when demand is slack and the warehouses are overstocked, a strike for higher wages or for the purpose of resisting a reduction occasioned by the exigencies of trade, is generally a failure. So also, strikes which occur at too frequent intervals are in general failures because the financial strain of a strike is too great for frequent recurrence and because the nervous strain of an important strike is sometimes great enough to kill the leaders on either or both sides.

237. *Collective bargaining.*—Individual bargaining between workmen and employers has been practically replaced by collective bargaining in most of those trades whose members are organized in stable trade unions. Prior to the drawing up of a collective bargain, however, it is almost, although not quite, indispensable for the employer to recognize the union. This has often been done with great reluctance because recognition of the union means discussion of the rates of wages payable to employees with third parties—the officials of the union to which the men belong.

Many strikes have taken place having for their object the recognition of the union with the ulterior object of collective bargaining. For a collective bargain to be advantageous to the workers, however, it is necessary to have in the background an amount of trade union funds sufficient to enable the workers to place a reserve price upon their labor. In any case, collective bargaining implies uniform wages, and contributes to the strength of the trade unions, although it does not altogether either prevent disputes or eliminate competition. "The Industrial Workers of the World," an organization which appears to be gaining strength, will not enter into agreements.

238. *Economic effects of trade unionism.*—The wage-earner, by means of insurance against unemployment in a trade union in a state insurance scheme, or otherwise, may provide a means of withdrawing himself temporarily from the competitive labor market. The influence of the trade union in diminishing competition by persuading or forcing workmen, whether or not they are members of the union, to refrain from offering themselves in competition and in maintaining them for a time while they are excluded from employment, is sometimes effective in reducing the local supply in the labor market. When this is done successfully, production is restricted, the stocks of manufacturers and others are depleted and prices are advanced. Advances in wages usually follow unless in the meanwhile the supply price of labor or the price of the product has fallen.

A strike of workmen diminishes the consumption of goods customarily consumed by them, although it also diminishes the production of the goods they produce. The diminution of demand is temporary but the net effect will depend upon the magnitude and the character of the dispute. A strike of bakers would produce in-

finitely more widespread and serious effects than a strike of tailors.

The policy of restricted output is sometimes adopted, the men refusing to work for more than three days a week, for example, in order that the restricted output may permit accumulated stocks to be sold and that thus the way may be prepared for a demand for increased wages.

When workmen are scarce and the supply prices of labor are high, the supply prices of the commodities produced by them will be high also; but each increase in the supply price checks demand. Either the supply price will have to be reduced or the production, and, therefore, the employment will have to be diminished. The results of increased wages under such conditions would be either negative so far as prices are concerned, in which case the increase in wages would have to be paid out of profits, or positive in which case the increase would be paid by the consumer, while fewer workmen would be employed owing to the reduced demand.

239. *Trade Unionism in the United States.*—In the United States trade unionism has passed through phases of character similar to those through which unionism has passed in Great Britain. Local unions and local groups of unions were first formed and then wider national unions of particular trades or groups of trades; then the American Federation of Labor corresponding to the Trades Congress in Great Britain. The same conflict of jurisdiction between unions also followed and there has recently emerged the same doubt and suspicion of the officialism of the unions, the outcome of which has been a syndicalist wing of the labor movement represented by the Industrial Workers of the World. This latter movement has not yet attained any formidable

numerical proportions, but it has developed great activity and great organizing ability, especially in the Pacific States and to some extent in the East and South. The most aggressive syndicalism has made its appearance in the mining and lumbering industries. Its aim appears to be to form one universal union. Instead of adopting a hostile attitude to Asiatic labor it has sought to enlist both Chinese and Japanese in its ranks. The purpose of this union appears to be a determined struggle against capitalism in the United States.

The development of trade unionism in the United States has undoubtedly been influenced by the fact that a very large proportion of the wage-earners in the great industries—in mining and in the steel and textile industries—consists of comparatively recent immigrants from Southern and Eastern Europe. These workmen, largely unskilled, are not only unaccustomed to trade union organization but are imperfectly acquainted or even ignorant of the English language. Any given group of them, also, is diversified in racial origin. The wages which they are able to secure without the aid of any trade union are much higher, both nominally and really, than the wages to which they have been accustomed. Many of them contrive to save what for them are considerable sums of money.

Trade union organization is thus very difficult. In some cases unions have trained and employed as speakers and agitators Italians, Greeks, Bulgarians and others with the object of utilizing them as trade union organizers among their respective compatriots.

240. *Trade unionism in Canada.*—Trade unionism in Canada owes its origin partly to the creation of branches of unions having their headquarters in the United States and Great Britain and partly to the formation of local

unions by immigrants from Great Britain. The comparatively rapid development of industry, and the scantiness of population, together with the existence of free land, have rendered the conditions of labor so favorable and the rate of wages so high that the advantages of unionism have been less obvious than otherwise they might have been. The maintenance of some of the unions has thus been difficult and there have been many fluctuations both in the local bodies and in the national organizations. International unions play a large rôle because there is much coming and going of workmen across the line.

241. *International trade unions.*—So large a proportion of the total wage-earning population in the United States and Canada is employed in agriculture, and the organization of agricultural unions on any large scale never having been effected in either country, the number of trade unionists in America is, relatively to the total number of employed persons, much smaller than is the case on the continent of Europe and in Great Britain.

The fact, however, that the important unions are international and that there is thus a very close association between the wage earners of the two countries, contributes an element of power to American unionism which does not exist in unionism in Europe. This element of power is also undoubtedly an element of danger. In order to promote the interests of labor in the United States, it may be expedient to incite labor disputes in Canada.

Difficulties arise in cases where trade union officials from the United States present themselves to employers in Canada to negotiate the wages of the members of their unions. Occasionally the question of the recognition

of the union has been compromised by its international character. National unions have sometimes been fostered by employers as an offset to international unions.

242. *"Closed" and "open shop."*—In certain industries the trade union is strong enough to insist upon the fixation of a label to a commodity to indicate that it is made by union labor. Some of the unions are also strong enough to insist upon the exclusive employment of members of trade unions. A factory where only trade union members are employed is known as a "closed shop." One in which any one may be employed whether he is a member of a trade union or not, is known as an "open shop." There are a few industries both in Canada and in the United States where trade union members are excluded from employment.

243. *Woman's labor.*—The determination of the wages of women has long been looked upon as depending upon factors different from those which determine the wages of men. The chief reason for this is that, as a rule, women are not entirely self-sustaining. In the textile manufacturing trades, in clothing manufacture, in the canneries, and in confectionary works, for example, where women are extensively employed, the workers not exclusively, but largely, live in the houses of their parents who also work in the same or in other factories. The wages of the women go to increase an already existing family income. Thus, so large a number of women can afford to take a wage less than they would require to have, to enable them to live independently, that their attitude in making a wage bargain, influences the bargains made by all other women.

The arguments for the public regulation of the wages of women are thus stronger than those for the regulation of those of men. It is obvious that a rule which would

require the equal payment of men and women in like employment might result in the employment of men rather than women in those occupations which are open to both sexes. In the teaching profession, for example, if the salaries of men and women were the same, men would in most cases be employed by preference. The reasons for the preference are that once having entered it men, as a rule, remain in the profession, while women do not, and that in general the discipline of men is regarded as being superior to that of women. In the lower grade schools, however, where the supervision of children is concerned, women teachers are frequently the better disciplinarians. In some occupations of the higher kind, where competition is restricted, the salaries of men and women of similar qualifications are alike.

244. *Voluntary minimum wages.*—In many unskilled trades, especially those in which women and girls are largely employed, employers have found it advantageous to establish a fixed minimum wage. Under this system candidates for employment are taken on probation for a short period at the minimum rate. If their work reaches a certain standard, the standard being based upon a piece work rate, they retain their positions; if it does not, they are discharged.

Since a certain proportion of those who are appointed on probation do not attain the required standard, the system must have one or other of two consequences, either the deficiency of those who fall short of the standard must be met out of deduction from the wages of the gainful workers; or it must be regarded by the employer as a premium of insurance against public criticism of his business on the ground that he pays wages which are inadequate for subsistence.

In a large, well-organized and generally profitable business, this system may be carried on continuously with advantage, but the employer on the margin will find it difficult to pay the premium involved in the system. Should he adopt the system of a fixed minimum the average wage of his worker will probably be lower than it might otherwise be.

Even in a trade such as garment-making, the skill of workers varies enormously. In one case known to the writer two girls, one a fresh recruit and the other an experienced hand, were working side by side in a garment factory. The most assiduous toil of the recruit yielded at the end of her first week $1.98, while the labor of the experienced girl who probably exerted less effort yielded at the same piece-work rate $6, or more than three times as much. In the second week the recruit made a little more, but she despaired of attaining the proficiency of her fellow worker, nor did she succeed until several weeks had elapsed in making even a living wage.

Under some conditions the minimum wage may be regarded as an advantage. It throws the cost of the education of the worker directly upon the employer, although the incidence of the cost will be likely eventually to fall upon the workers as a whole. It would appear that there might be adopted a system of technical education by means of which the technique of certain trades in which large numbers of working people are employed, might be imparted at a minimum of cost to those who intend to enter such trades; but even a system of this kind would not be likely to meet the case of those who drop into inferior employment, like garment making, for instance, and who have neither time nor means to enable them to take advantage of educational facilities. They must work for wages without delay. For

such workers the minimum wage is a real advantage even if subsequently the deficiency of their recruit stage is met by deduction from their subsequent wages.

245. *Statutory minimum wages.*—The case of voluntary minimum wages has been discussed above. The case of statutory minimum wages depends upon somewhat similar conditions. The statutory minimum wage apparently fixes a reserve price for labor, but it does not enable the applicant for employment to live should he not be able to secure employment at the minimum. Employers may by means of intimate inspection of the conduct of their business be prevented from paying less than a certain amount; but they cannot be compelled to employ workers, the product of whose labor is not equal to that amount.

A statutory minimum wage would, therefore, require to be supplemented by some system by which those who were unable to obtain employment at the minimum wage would be supported by the State. The higher the minimum the larger would be the number of workers which would be excluded from employment in the field of general industry and the strain of the maintenance of those who were excluded might become very great. A municipality may fix as a minimum for all persons employed in any capacity in its service a wage of $2 per day, on the ground that this amount represents the minimum of subsistence. If, during a period of industrial depression, the city is inundated with applications for employment at this wage, it may be advisable to extend its pay roll in order to provide employment for these applicants. The new workers may be set to some civic improvement or to some other kind of employment for which labor of an inferior or non-specialized sort may

be serviceable; but there is an inevitable limit to such employment.

If the municipal authorities decide to expend a specific sum upon such work, bearing some proportion to the total expenditure of the year, it will be possible to employ at the fixed minimum only a certain number of persons, and other means of relief will require to be provided for the other applicants. Meanwhile, however, the attraction of a fixed minimum will have drawn into the city from the rural districts and from other cities where there is no fixed minimum, more applicants for employment; with the consequence that local charity will be overtaxed, while those districts in which no fixed minimum exists will be relieved of pressure upon their charities.

This illustration is taken from the city of Toronto, which every winter is subjected to an invasion of unemployed workmen, some of whom leave other centers on account of the fixed Toronto minimum and others on account of the numerous charities in the city.

If, however, a municipal minimum wage results in drawing to the city which imposes it a larger number of applicants for employment than would otherwise have gone there, it is clear that, other things being equal, the imposition of a municipal minimum wage will tend to depress the labor market by an over supply of labor and, therefore, to reduce wages in general industry. Even if the city were able to employ a large number of the applicants it could not do so in indoor employments because it has no organization for industries of an indoor character. The city employment would be wholly out of doors and rather than endure the discomfort of winter work in the streets the fresh applicant for employment would accept even lower wages for indoor employment.

246. *Statutory maximum wages.*—The fixation of a maximum wage was a very usual municipal act during the earlier ages of free hired labor. When such laborers were few and when the demand for them in the industrial towns was increasing, their demands for higher wages became insistent and these demands were sometimes accompanied by much turbulence. This condition was very usual after any serious epidemic in which the numbers of laborers in a city were suddenly reduced while the external demand remained unaltered. The plagues in the fourteenth century, which affected seriously the great commercial and industrial cities of northern Italy, for example, reduced the numbers of laborers so that wages advanced to a high point.

The municipal authorities in several of the city republics endeavored to prevent the advance of wages by imposing a statutory maximum. On the other hand Venice, in general more shrewdly governed than any other city of her time, widely announced that no maximum was imposed there, that on the contrary the highest wages would be paid. The result was an immediate migration of artisans and laborers to Venice, and owing to the competition of these for employment wages fell to a point below the maximum imposed by the other cities.

The imposition of a maximum wage has a deterrent effect upon immigration of workers into the region affected and, therefore, a statutory maximum tends to become the uniform wage because the best workers will emigrate and only the inferior workers will remain.

247. *Conciliation and arbitration.*—With a view to the mitigation of the struggle between capital and labor, arbitration in wage disputes was adopted at an early stage in the development of the mechanical industries on a large scale. Wages, for example, in the cotton trade and in the coal and iron trade in Great Britain were fixed by boards of arbitration appointed jointly by the employers and the employees. In the trades mentioned, arbitration boards fixed the rates of wages periodically and in the North of England, so far as the iron and coal industries are concerned, and in the Manchester district, so far as the cotton industry is concerned, they have been successfully conducted for more than forty years. Government conciliation and arbitration boards have been appointed in New Zealand and a somewhat similar method has been adopted in Canada. Arbitration boards have from time to time been appointed in the United States, under State and Federal Acts, to deal with specific disputes.

Where there is a difference of opinion as to the rate of wages, and where the difference concerns a comparatively small amount, arbitration or conciliation boards perform a useful function in effecting a compromise between the parties; but where the difference is upon some question of fundamental principle, such as the recognition of a union, a compromise is impossible and arbitration is of little use. If a body of workmen refuse to work unless their union is recognized, and if the employers refuse to recognize the union, no board of arbitration can settle a dispute of that kind because it cannot enforce its decision. The employers can only yield to economic pressure; and the same is true of the workmen.

An employer who is a contractor to the government may be forced to recognize a union or to increase the wages of his men by means of a threat that if he does not do so he will be awarded no more government contracts, or by threats of prosecution by the government

for alleged violation of the Trust Act, etc. If he yields, however, it will most probably be on the understanding that the increase of wage will be taken into account in the next contract. An arrangement of this kind results in the taxpayer paying the increase and not the contractor. There have been instances in the United States of strikes for increased wages by the employees of a government contractor and of the claims of the strikers being met after an arrangement by which the representatives of strikers agreed to press for an increased price to be paid by the government to the contractor. In such cases, the strike is not really against the contractor but against the taxpayer.

In the case of an employer who does not stand in the relation of a contractor or of a possible contractor to the government, the latter has no direct power to force an increase of wages or to force employment, although indirectly it may exercise such a power. In no case has a government or a board of arbitration power to enforce a decision against the men. If the men refuse to accept the decision of the board, a strike or the continuance of a strike already in existence is their only alternative. Unless it is presumed that the government has absolute power, it cannot send the men to jail merely because they refuse to work. Under common or statute law they may be indicted for any violent act which they may commit but they canot be prosecuted for refraining from labor.

This formidable fact has rendered arbitration of no effect in frequent cases, in every country in which arbitration legislation has been in force. The policy of arbitration is nevertheless useful in those cases in which the dispute is about small differences in wages. In Canada and in the United States the question of arbitration is

complicated by the existence of international trade unions.

248. *Trade unionism and economic theory.*—The earlier phase of modern trade unionism was coincident with the development of a theory of labor which emphasized the importance of the relation of the increase of population and the rate of wages. It was held that there was a tendency for population to outrun subsistence; that is, that given increased production, population would speedily increase in such a manner as to absorb the increase. It was held, also, that it was for this reason impossible for the wage-earning class as a whole to increase wages except by increasing production; but since an increase of production must necessarily bring more wage earners into the field, it was in the long run hopeless for the wage-earning class as a whole to improve its standard of comfort except by limiting its numbers. If one group of wage earners, by means of combination or otherwise succeed in raising their wages nominal or real, other groups must suffer.

While it has by no means been shown conclusively that combination has raised the wages of the workers considered as a whole, there can be no doubt that the standard of comfort of the mass of the people of the western races has risen during the past fifty years. To what circumstances is this rise in the standard of comfort due? It would apear that it is due chiefly to two circumstances: *first*, to the invention of more economical methods of production, the product per labor unit being greater; and, *second*, to the fact that the population has *not* increased in proportion to the increase of production. An increased standard of comfort and the desire to increase this standard still further have in many countries, but most notably in the United States and in

France, imposed a check upon the increase of population. To use the expression of Malthus, "The hare has been persuaded to go to sleep, and the tortoise has overtaken it."

This is true of the most progressive races in the industrial sense; but it is not true of two great and extremely prolific races, viz, the Slavic and the Chinese. The growth of these two races appears to conform to the theory of population of the latter part of the eighteenth century. The struggle of the future may be between these races, on the one hand, and the Western races which are determined to maintain and to increase their standard of comfort at the expense of increase in numbers, on the other hand. It is interesting to notice that, both in China and in Russia, labor combinations of one type or another, have been in existence from a very ancient date, and that they have not been effective in maintaining any high level of comfort, although they have on occasion been effective in raising the rate of wages.

Trade unionism, as distinguished from the more recent industrial unionism, among Western nations has, in the strict sense, accepted the system of employment which is usually called the capitalistic system. It has in general been opposed to systems of profit sharing and cooperation as well as to any system of state socialism. The fundamental reason for this hostility is, that under the existing system wages are certain, although employment is not certain, while under the systems mentioned, employment might be certain but wages would be uncertain.

CHAPTER VI

CAPITAL AND INTEREST

249. *History of interest.*—The organization of a productive enterprise involves, as we have seen, the purchase of capital for the purpose of procuring land, buildings, machinery and other necessary means, and for the purpose of meeting the current expenses until the returns from the productive process begin to come in. The need for capital gives rise to the problem of interest. This problem of interest is—how is the amount determined in the market and for what form of value is interest paid?

The history of the numerous views about the nature of interest which have been advanced from time to time can be recited only briefly. In early ages, before what is known as capitalist industry assumed prominence, money was usually lent for purposes of consumption, rather than for production. Sometimes forced loans were exacted by governments or by nobles who were able to extort such "benevolences." For these, interest was not usually paid. Otherwise those who desired loans usually desired them for food, clothing and the like. To lend money for such purposes was looked upon as a Christian duty; and if interest was charged upon loans of this kind, the act was regarded as an exaction from the needy. The State and the Church alike, in general

discountenanced and frequently forbade such transactions.

The beginning of modern commerce, which may be said to have occurred in the sixteenth century, resulted in a change in views about interest. Many of the commercial adventures in which the merchants of that day engaged required capital to a greater extent than they themselves possessed, and they therefore borrowed it. Since the capital was intended to be productively employed, no moral offence was observable in the merchant offering and in the owner of the capital receiving, when the sum was repaid at the stipulated period, a larger sum than that which had originally been transferred. The merchant had made a profit out of the capital involved in the loan, and it was neither unjust nor unreasonable that he should surrender some portion of his profit to the owner of the capital which had made the earning of the profit possible.

250. *Early theories of interest.*—This practice led to the ideas that interest was paid for the use of money, and that interest was due to the productiveness of capital. The accumulation of capital in the latter eighteenth and early nineteenth century gave emphasis to another idea, viz., that capital was the result of saving and that interest was paid in return for the service of saving. The expression which came to be employed was ambiguous, interest was said to be the "reward" of saving.

One of these expressions is now used as a definition of interest, although each expressed a certain aspect of the truth. Capital was used and interest was paid; and to the individual lender the reward of his abstinence came to him in the form of interest from the people to whom he lent his money. Had he not abstained

from spending it, neither the money nor the interest would have been his. There are, however, many cases in which money is not lent for productive purposes and in which, nevertheless, interest is paid. Money may even be borrowed without being used in any sense and yet interest may be chargeable for it. Yet the mere abstinence from spending money will not of itself yield interest. The steward who hid his master's talent in a napkin saved it but was not rewarded by any increase.

251. *Current theory.*—The current doctrine of interest is somewhat different. The problem of interest is really a part of the general problem of value. How do we estimate the value of things? This question has already been discussed. We have seen that we value things in respect to the urgency of our demand for them, in respect to their immediate or remote availability for the purpose of yielding their utility to us, and the like. The two points just mentioned are those which are chiefly operative when we consider a transaction relating to what is colloquially called a loan of money. If we urgently require money for any purpose, and if we have it in our power to obtain it, we are usually disposed to undertake to pay something for the sake of having it immediately. In other words, we consider an immediate sum of greater value to us than a remote one. We estimate that a sum of $100 payable today is, at least, as valuable to us as a sum of $105 payable a year hence, or we may regard the two sums as precisely equivalent. "A bird in the hand is worth (is equivalent to) two in the bush." The difference in the two figures in the above illustration is $5 and this sum is interest.

Thus, interest may be defined as the difference between a sum payable now and a sum payable at a

future time; the amount of this difference is the amount which it is necessary to add in order to produce equivalence between a present and a future sum. This theory of the mode in which interest emerges is known as the *agio* theory because it regards interest as an *agio* which is added to product equivalence. The theory is stated in various terms by different writers, but in general it is accepted as the current doctrine of interest.

252. *Market rate of interest.*—In the rate of interest, as determined in the market, there are discernible three elements: first, the *agio* as above described, or interest properly so called; *second,* a premium of insurance against loss; and, *third,* a commission or fee for the management of the transaction. All of these elements are variable.

The amount of the first element or *agio* will depend upon the urgency of demand for immediately available capital, on the one hand, and upon its supply, on the other. The amount of the second element will depend upon the lender's estimate of the risk incurred in making a particular loan or in his estimate of the average risk he incurs in his business of lending money or in particular sections of it, and the third element will vary with the character of the loan and the character of the lender's business.

253. *Four divisions of money market.*—The money market is customarily divided into what may be described as watertight compartments. In one of these compartments appear the sums destined by their owners for permanent investment in those securities which yield an annuity, which is not involved in uncertainty and therefore is held to involve no risk. The securities of the most stable governments are in this class. The principal investors are the governments

themselves for the sinking funds connected with their debts, bankers and the trustees of public and private institutions and of private estates.

Next to this section of the money market there comes the section in which there are funds destined for investments in municipal securities together with high class railway bonds and stocks. Beneath these, there is the section in which there are the funds destined for investment at higher rates in less stable securities. Apart from the sections of the market for capital which contain the funds as above described, there is the section which contains the funds which are available for loan from day to day. This section may be described as the market for money, the other sections being properly described as constituting the market for capital.

Interest (both gross and net) may vary widely among these sections. Under certain conditions of the market for capital, a government may be unable to borrow either on the security of its permanent or its temporary debt at a rate lower than 3 per cent, while at the same moment day to day loans may be made at a fraction of 1 per cent. So, also, under other conditions a government may be able to borrow at 3 per cent, while day to day loans are commanding 10 or 15 per cent. Although the two divisions of the market are thus separated, they are nevertheless connected, because a large part of the funds waiting for investment in permanent forms may temporarily be used for the purposes of day to day loans, and permanent securities may be employed for the purpose of raising money on day to day loans.

A peculiarity of the day to day money market is that those who deal in money in this way are almost always more or less urgent sellers of money. Given adequate

security they must lend, even if they have themselves to borrow; otherwise they might as well give up their business. This is the reason of the extremely low rates for short periods which are occasionally to be obtained.

The market rate of interest thus depends upon the amount of funds seeking employment in the particular section of the market in which a given demand finds its appropriate supply. It must be realized that low interest rates apply only to large sums. Borrowing in detail resembles purchases in minute quantities, the cost of management which enters as an element into all loan transactions constitutes a large part of the gross interest in small loans, in large loans it constitutes a small part.

254. *Influence of monetary combinations.*—Money is so widely diffused throughout the world that no attempts to monopolize it in any effective manner could possibly succeed. The competition of capital is perhaps more thorough than any other form of competition.

Yet scarcity of available capital may occur from many causes. The owners of capital may be afraid of a financial crisis, and may be reluctant to allow their money to go out of their possession, so that although there may be an abundance of capital in existence, there is a scarcity of available capital. There may be a scarcity of capital in the centres of commerce because money has been drawn to the outskirts or has been diffused so widely that it cannot be obtained quickly for the purpose of satisfying some anticipated demand.

Under these circumstances if a borrower goes into the market with an urgent demand for money, he may have to pay a very high rate. Many large industrial concerns require on occasion very large sums upon the

credit of their enterprises, and if their need happens at a moment when the funds are scarce in the market, they may have to pay a very high price for it. Thus, the Pennsylvania Railway required the considerable sum of $50,000,000 in 1906 and required it at once. The money was obtained in Paris and the rate including commissions was, it is believed, about 7 per cent. The credit of the company was not in question. The market was depleted of money and the rate of interest for all borrowers was abnormally high.

On the other hand, day to day loans are frequently made in New York under ordinary conditions of the market at 2 per cent or less, while in London fractions of 1 per cent are not unusual for very short periods. The rate of interest for all the world is practically determined in the money market as a whole; but certain local markets have a dominant influence. These are London, Paris, Amsterdam, Berlin, Vienna and New York. The capital laboriously saved by the English, Dutch and Belgian middle class, and by the French peasants and small retired mercantile people, forms really the bulk of the constantly increasing fund of credit from which all the rest of the world draws.

The relatively high rate of interest in new countries is due to the demand for capital for the rapid exploitation of the natural resources and for the construction of railways, harbors, cities, etc. Practically everybody in a new country is a borrower.

255. *The function of capital.*—We must now consider what is the precise function which capital exercises so far as productive enterprises are concerned. From the description which was given of the meaning of complex production, it is clear that in the simplest form of that production capital is involved. In order

To obtain time to make a weapon or tool it is necessary to have a reserve of food sufficient to subsist the maker of the instrument while he is making it. If the process of making it demands only a short time, a small quantity of food is required; but if the process demands a long time, the quantity required is so much more.

Anyone who has really attempted to live what is known as the "simple life" must have been convinced that it takes a very considerable portion of a day, in the absence of all adventitious assistance, to prepare food for personal consumption. If to this portion we add the amount of time necessary to procure the food by hunting, fishing or cultivation, it becomes clear that only tolerable expertness in all of these operations can yield enough for subsistence even if the whole day be occupied in working.

If we eliminate altogether the products of previous work and attempt an absolutely fresh attack upon nature, we shall realize how difficult it is to make any progress at all. When we are able, however, to accumulate a sufficient reserve of food to enable us to find time to make some implements which will facilitate our further operations we can manage more rapidly. We invent means to save time, and gradually we are able to accumulate more food and by means of that to make more instruments and so on.

256. *How capital comes into play.*—Human progress has indeed been accomplished in that manner. The accumulation of food and the instruments which we have made have together, as it were, lifted us from one stage to another. The food and the instruments were our capital, and our capital lifted us from one stage to another.

This lifting process is really the function of capital.

If we have food and instruments enough we can perform feats which take even a very long time. Thus, capital saves time, it enables us to do rapidly and easily that which we might otherwise do, but could only do laboriously and slowly, and it enables us to do some things which, without it, we could not do at all. The need for capital is, therefore, obvious.

But in order to obtain capital, we must either accumulate the food and the instruments ourselves or procure them from someone else. If we can by means of utilizing the food and instruments which we procure from someone else, increase our own resources, or if we can induce someone else to wait until we can return the food and instruments or their equivalent in some recognized form, it may be very advantageous for us to make an arrangement by which we may return more food and more instruments than we obtained originally. Indeed, we must do so in the normal case, for the food and instruments might have been productively used by their owners themselves. Our position as foodless and instrumentless persons might, indeed, impel us to offer much more at some future time, provided we were able to get immediate access to the comforts we wanted for ourselves, instead of waiting for them until we ourselves had accumulated the means of obtaining them.

Briefly, then, capital enables production to be carried on by providing the means for the accomplishment of the various steps in the productive process prior to the performance of the operations involved in that process. The more numerous these steps and the longer the period which must elapse before the finished consumable goods make their appearance, the more capital is required.

It may be, as some have held, that capital is so

socially necessary that it ought to be provided by communal groups or by the State on certain terms to everyone who can utilize it; but whether it is provided by such means or through the existing competitive money market it is quite essential to progress. In this sense capital is not the enemy of labor, but is the indispensable support of it.

In accounting for the phenomenon that present capital is, in general, scarce, relatively to the demand, we are driven to the conclusion that this scarcity is due to the excessive absorption, in modern times, of capital in the form of present goods for the production of goods of a permanent character—goods, in other words, having in their nature many and long continued uses. These uses are stretched out, as it were, over so long a period of time that the numbers of them which are susceptible of immediate utilization are small in proportion to the immediately realizable utilities that have been absorbed in the making of them.

257. *Railway construction in United States.*—An illustration drawn from the history of railways may make this point clear. When the railway system was being developed rapidly, immediately after the conclusion of the Civil War, the United States was with difficulty able to borrow the amounts necessary for the construction of lines over the immense unoccupied spaces which intervened between the centres of population. It was, therefore, indispensable that the lines should be constructed at a minimum of cost. The possible traffic upon them could not justify the method of construction which had been adopted by countries in which the population was relatively dense and in which trade routes of importance had already been established. Thus American railway construction was light and comparatively inexpensive.

The cost per mile was probably from one fifth to one sixth of the amount expended in Great Britain.

258. *Effect in Europe.*—Yet the borrowing of the necessary capital not only strained the credit of the United States, but in a measure strained the credit of Europe. Why did it do so? The money had been supplied and expended. Why was there succeeding scarcity of capital and financial crises?

In order to answer this question, we must bear in mind what had occurred. In the early seventies, the United States produced an insignificant amount of iron. Therefore, most of the iron for the railways had to be imported from England. There, the demand for iron in consequence of domestic and foreign requirements became very urgent. Stocks of pig iron which had been accumulating in the previous decade were speedily exhausted, new furnaces were "blown in" and additional miners were employed to recover the additional quantities of iron and coal that were urgently demanded.

Wages advanced enormously, and the companies owning the iron works in the North of England and in the Clyde and Forth districts reaped immense profits.

Meanwhile, in the United States, huge gangs of men were constructing the permanent way and laying the rails; other groups were building locomotives and cars; and others were building bridges and railway stations. All were working at high pressure and wages were relatively high. The capital subscribed chiefly by the European investor went into payment of these wages, manufacturing and other profits, etc. That is to say, it provided for the daily maintenance for several years of the great army of men who were building lines and contributing in various ways to the equipment of them.

Some of these lines might yield a return to the capital in the shape of dividends at a more or less distant period. Many were destined not to return it at all.

There was thus an enormous conversion of consumable into unconsumable goods, or rather into goods which were consumable only at some remote period. When capital is circulating actively, when the productive process results in rapid return, capital is not relatively scarce because it can be employed over and over again within a short period of time; but when the velocity of the return of capital is low, capital must be relatively scarce because what there is of it is not expeditiously employed. Thus, although the American railways were inexpensively constructed, they consumed an amount of liquid capital which proved to be embarrassing not only for the United States but for Europe.

CHAPTER VII

THE LANDOWNER'S SHARE

259. *Value of land depends upon rent.*—The obviousness of rent as the share of one of the factors in production varies in different countries. In Great Britain and in Continental Europe, with the exception of certain parts of France, land is customarily possessed by one person and cultivated by another. In the United States and in Canada the cultivator is, as a rule, the owner, although the practice of renting land has become common in the United States during recent years. It is still rare in Canada. Even in the towns the practice of the past in both countries was for the occupant of a house to own it, and although the practice has been much modified, especially in the larger cities, it still obtains in America to a much greater extent than is the case in Europe. The building of apartment houses, however, is causing the gradual disappearance of the small house and lawn which up till the present has been characteristic of the towns in the United States and Canada.

It is thus not customary in America to speak of land in terms of its annual rent, but to speak of it in terms of the price at which it is estimated it might be purchased, or its value "as between a willing buyer and a willing seller." This practice has had several reactions, one of them being the general adoption of

the method of taxing land upon its estimated value and not as in Great Britain upon its annual rent. While rent as an element in distribution is thus, in America, somewhat obscured by the mode of estimating the value of land, it is nevertheless present whether or not it is readily recognizable.

260. *Origin of rent.*—The historical origin of the rent of agricultural land has varied in different countries. In those countries in which serfdom survived until it was surrounded by commercial economical conditions (as, for example, in Prussia, where serfdom continued until 1806, and in Russia, where it continued until 1861), rent appears to have originated during the era of serfdom. Rent under these conditions was really a series of periodical payments, not for the use of the land, but for release from obligations sometimes attached to the occupation of land by the serf and sometimes attached to the ownership of the serf by his master.

These foundations of the payment of periodical rents were often confused, although sometimes they were separated. The occupancy of the land did not depend upon the payment of rent by the occupant. Even if he did not pay his rent, he could not be removed from the land. His movable property might be taken, if he had any; if it were taken, however, he might be deprived of the means of further payment. It was thus expedient to flog or to imprison him. In any case, he could not be deprived of the land which it was his duty to cultivate.

The periodical payments which he made in order to secure release from the obligation to render personal labor on his master's fields were not based upon the area or upon the value of the product of the land occupied by him, but were based upon the value of the labor which his master customarily exacted from him.

The gradual change from the rendering of an indefinite number of days of personal labor, to the payment of a definite amount either in kind or in money, constituted an important step toward freedom. Yet the payments were sometimes so burdensome that it was impossible in many wide regions for the peasants to make the payments by means of the products of the cultivation of the land allotted to them. It was necessary for them to engage in industrial labor for the purpose of earning enough to pay the amounts due to their masters.

When the commercial system of landholding replaced the feudal and analogous systems, the payments customarily exacted by the owners of serfs and of land were transformed into payments, exacted not in respect to commutation for services, but in respect to the occupancy of land, although they were in some regions still in excess of the amount which the peasant could pay, while living upon the produce of the area occupied by him. It was possible for the peasant to pay the amounts due in the name of rent under these conditions only when by hunting, fishing, domestic of factory industry he could supplement his income from the land in such a way as to pay the rent for it. Examples of these so-called non-economic rents abounded in Russia at the close of the era of serfdom and they survived in the Scottish Highlands and in Ireland until the grievances they produced led to legislation upon the subject.

261. *Land as a commodity.*—The rent of land in any strict sense could not arise until land became mobile, that is, until it could be bought and sold like any other commodity, and until there was no longer compulsory attachment to the soil.

It cannot be denied that the system of indefeasible ownership of land has certain social advantages. It secures a country in the possession of an agricultural population. Under the pressure of compulsory labor upon the master's fields or upon the peasants' own fields, in order to maintain themselves or to pay the obligations due by them, there may be a considerable surplus of product over the actual needs of the population. On the other hand, in spite of a certain material prosperity, which is not incompatible with serfdom, experience has shown that the system breeds anomalous human relations and leads to deterioration of both of the classes concerned.

When, however, a commercial relation is established between the owner of the land and the occupier, difficulties of another kind make their appearance. Where the population is dense, the commercial owner of land is in the position of a quasi-monopolist. In other words, where the land market offers a limited supply in relation to demand, the landowners can exact a price which may amount to a share of the total produce of the community relatively much greater than the share obtainable by landowners in less densely populated regions.

262. *Similarity to other productive enterprises.*— The causes of friction between landowner and land cultivator are not, however, confined to such cases. Where the agricultural population is deficient in or destitute of agricultural capital, they occupy the same relative position with regard to the owner of the land as landless workers in factories occupy with regard to their employers. Both classes are weak sellers of their manual labor.

On the other hand, where there is competition among landowners for skilled farmers (a condition which

exists in some of the agricultural counties in England), where the farmers have sufficient agricultural capital, where the land is fertile and favorably situated with reference to a local market for its produce, and where the farm leases are fairly drawn, there is a sufficient advantage in the division of risk and of the advancement of capital between the landowner and the farmer to justify the wide adoption of the system of renting land.

The diminution of prestige attaching to the ownership of land, owing chiefly to the diminution of the political influence of the landowners as a class, especially in England and France, has had an important effect upon the land market. Large estates have been thrown upon it for sale with the consequence that the value of land, especially the land surrounding mansion houses together with the value of the houses has declined greatly, except where the land is situated on the outskirts of growing towns where, in some cases, it has enhanced in value.

263. *Land policy in United States and Canada.*— The land policy of the United States has been variable. Until the middle of the last century, land was granted or was sold at small prices in large blocks to private individuals or to groups of persons. It was understood that these persons were to make efforts to colonize their grants. Doubtless their greatest advantage would have lain in their doing so; but colonization under such conditions is very difficult, and experience both in the United States and in Canada has shown that it is rarely successful.

Under the influence of the pressure of population, the policy was changed, homesteads were granted gratuitously in certain regions and immigration soon

absorbed the free grant lands. When the Western Provinces of Canada were opened to colonization through the construction of the Canadian Pacific Railway, the homestead grant plan was adopted, although large areas of land were granted to railway companies in alternate sections. Immigration has here also been absorbing the homestead grants until ere long there may develop a scarcity of land in spite of the magnitude of the region. It may yet be shown that homestead grants of 160 acres per family were too generous and that long before the country has been fully settled in any real sense, the public lands will all have been alienated gratuitously either to railway companies or to homestead settlers.

264. *Increase of land prices.*—The increasing scarcity and remoteness of the free grant lands may check the flow of immigration; but if for any reason this flow continues, the price of land must rise. A comparatively small advance in price is likely to cause the breaking up of the larger holdings, especially if there is for any reason a rise in the rate of interest, and the advance will by this means be checked. The advance in the price of agricultural land must have the effect of stimulating production, and where the land is suitable for intensive cultivation, this will have to be undertaken.

265. *Who benefits?*—The class which will chiefly benefit by the increase in the price of land, which must take place should the demand be maintained, will be the presently existing farming class, for in anticipation of an imminent scarcity of land, farmers have been buying land heavily in the vicinity of their homesteads. The newcomers will have to pay the increased prices to these holders or "old livers" as they are called in Eastern Europe.

Should the "newcomers" be unable to purchase the land for farming purposes, although they might possess capital sufficient for the business of farming apart from the amount necessary to purchase the land, the system of renting land may be expected to extend as it has done in Nebraska and other states of the Union. (Already about one-third of the farmers in the United States rent the farms they cultivate.) This system of renting from small holders of land, tends to bring into existence a class of small landowners who live in towns upon the rents paid to them by the farmers of their lands. In course of time, owing to pressure of population, some of those conditions which for hundreds of years have been familiar in Western Europe, seem likely to reproduce themselves upon this side of the Atlantic.[1]

266. *Theory of rent.*—The commercialization of landholding in Western Europe in the eighteenth century led to the development of a theory of land rent, as the growth of capitalistic industry at an earlier period had led to the development of theories of interest. The theory of rent, as it emerged at the end of the eighteenth century and the beginning of the nineteenth, has not been subject to any widely accepted or serious modification. It is based upon the law of diminishing returns which was at that time being pushed to extremes in all directions. Stated in its briefest form, it may be put thus: Rent arises because the fertility of any particular area of land is finite and because the fertility of different areas varies.

If the application of successive amounts of capital

[1] It is not intended to suggest that the complicated system of land tenures, which is the inheritance of remote ages, will be duplicated in America; but that the division of the functions of landowner and cultivator will become more prevalent than they have hitherto been.

and labor upon a certain area of land could yield continuously increasing quantities of produce, or if all land were of equal fertility, there would be no rent. The historical theory of rent which arises from this statement is that rent arose through necessity, under the pressure of population and the consequent demand for the cultivation of soils inferior to those previously in cultivation. The inferiority is due not merely or even necessarily to inferior fertility, but to inferior productivity, the facilities for cultivation and the distance from the market being taken into account. Rent thus appears as a surplus or net product which is yielded by a particular area of land, over and above the returns to the capital and labor expended in production, the amounts of these returns being determined in the respective competitive markets.

267. *Rent as surplus.*—Looked at from the angles of the other sharers in distribution, rent appears as a surplus emerging above the normal level of wages and interest. This surplus is described as economic rent. It will be observed, however, that the idea of a surplus arising in a scheme of distribution of a common stock among several claimants is not precisely the same idea as that of the productivity of the factor of land as such. The landowner as landowner does not organize the productive operation, and the surplus may or may not arise out of the exercise of his function of landowning. The surplus may fall into his hands owing to the strength of his economic position; but if he were economically weak he could not obtain it.

Thus, it is hardly a sufficient explanation of rent to say that it is a surplus. There is a sense, however, in which rent, interest and profit may be regarded as collectively constituting a surplus. In this sense labor is

conceived as being habitually rendered at the margin of subsistence of the laborer, and the whole cost of the productive process is conceived as being referable to labor. Therefore, all the value of the product above the cost of the labor is surplus value, and rent, interest and profit constitute this surplus value.

268. *"Surplus" theory not always applicable.*—It may be suggested that, while the theory of rent which has just been stated briefly is applicable to several important cases of rent, it is not sufficient to explain all cases, even though it may be accepted as sound so far as it goes. It does not apply, for example, to those cases of non-economic rents to which reference has been made above. The particular case of rent upon which stress is laid in this theory is the case of rent which is due to some differential advantage. This differential advantage arises from an inherent property in the land or in the natural agent. The fertility of a piece of land A is twice as great as the fertility of a piece of land B; the rent of A would then be twice that of B, the respective fertilities being calculated not from zero but from the point which in either case is just sufficient to return the value of the capital and labor expended upon it, as estimated in the market for the produce and in the markets for capital and labor.

Land is susceptible of a great variety of uses, and the value of it at the time of purchase or the rent arranged for at the time of entering upon a lease may be very distantly related to the use to which the land is eventually put. In the case of increasing superiority of use in a productive sense, subsequent purchases or leases would take this superiority into account insofar as it was practicable to foresee the future. In view of the increasing mobility of land, it may be observed that

there does not seem to be any considerable advantage (granting the commercialization and the consequent subjection of it to competition in the market for land) in separating the case of land from other cases of value —such as commodities, capital and labor—except insofar as it is absolutely necessary to separate one category from another.

269. *General application of the term rent.*—There are many cases of differential advantage besides that of land to which the term rent may be, and sometimes is, applied. We may speak in this sense of the rent of waterpowers, the rent of machinery of different types, and we may speak of the rent of chemical processes arising from their differential advantages. We may even speak of the rent of ability as forming that part of wages or salaries which is due to a man on account of his possession of some special aptitude. Some workmen acquire great dexterity in the management of furnaces for the production of steel; others for the management of the immense lathes upon which the propeller shafts of steamships are bored for the purpose of diminishing their weight, etc. Part of the wages of these workmen may be described as rent of ability. A large part of the salaries of the managers or managing directors of large industrial enterprises may be regarded as "rent of ability."

PART IV: CONSUMPTION

CHAPTER I

CONSUMPTION FOR SOCIAL USE

270. *Classification of consumption.*—Although consumption is the goal of production, and is, therefore, of an importance at least equal to that of production, the constituents of consumption as an economic department have not been so definitely reduced to formal arrangement as have those of production, distribution and exchange.

In general, the department of consumption may be said to concern itself with the demand side of the market as production concerns itself with the supply side. We may, therefore, consider as belonging to this department those causes of variation in demand to some of which we have already alluded in discussing Exchange.

Consumption may be regarded as comprising three important categories:

1. Consumption for Social Use:
   - (a) National and Civic Consumption—involving compulsory demands upon the resources of the people.
   - (b) Voluntary—arising from benefactions, endowments and the like.

2. Consumption for Personal Use—involving discussion of the Standard of Comfort or normal level of consumption of the people, including variations from the normal level—the extremes being luxury and famine.
3. Consumption for Productive Use—involving demand for the purpose of production of
   (a) Machinery, raw materials and partially finished goods.
   (b) Men—under this head might be discussed appropriately the using up of human energy and life in production, industrial hygiene and pathology, the economic value of population, the mobility of labor and the movement of population.

The reactions of consumption or demand upon the other economic processes would also fall to be discussed in this place.

271. *National consumption.*—The income of the government insofar as it is derived from taxation must be regarded as a deduction from the aggregate incomes of the people who contribute the taxes; insofar as the income of the government is derived from direct services to the people who enjoy the benefit and pay the price of these services, the income of the government cannot be regarded as a deduction because it is received for corresponding utilities directly rendered.

Governmental demand may, therefore, be divided into two classes: the demand which arises from certain services which are rendered by the government at the general charge, that is to say, by means of the tax fund; and the demand which arises from the rendering of specific services which are paid for by the people to whom they are rendered. Thus, the service of national

defence is paid for out of the general tax funds or on occasion out of special war tax funds, or out of the proceeds of loans raised and charged upon general or special funds, and is assumed to be rendered in the universal interest—those who pay no taxes enjoying the same benefits as those who do. On the other hand, the cost of the service of the Post Office is, as a rule, defrayed out of the postal revenues. This is not always the case. For many years after the penny post was instituted in England, the Post Office revenues were insufficient to meet the expenditures. The Postal Telegraph system has always been conducted at a loss which had to be met out of other sources of revenue. Even now, if interest upon the capital invested in the Post Office is considered, the British Post Office barely pays its way. The Canadian Post Office and the United States Post Office are in a less favorable position because of the inferior density of population. The Post Office, in general, may be said nearly to pay its way, the balance against it, where such a balance occurs, being met out of the general tax fund. The case of a public service of this kind making a profit is considered later.

There are certain forms of governmental expenditure which do not directly benefit the whole of the people, but which do directly benefit some at the expense of the general tax fund. The maintenance of the poor where there is a national poor law, the provision of education where this is done gratuitously or below cost and the administration of justice are examples of this order of expenditure. Indeed, in most countries at the present time, governmental administration is being utilized more and more as an agent for the distribution of wealth, sometimes with the avowed intention of dimin-

ishing the inequalities which are brought about by distribution unregulated by government—what Adam Smith called "natural distribution." [1]

272. *Effect of government consumption upon demand.*—The expenditure of the government involves consumption and thus involves demand. The public offices, docks, state railways, roads, bridges, etc., constructed to the order of the government, constitute, especially in new countries, a large part of the consumption of structural material and other commodities, and a large part of the demand for labor. Some of these works no doubt would have been undertaken by private individuals or groups of individuals had the government not undertaken them, but many of them would not; because private enterprise is not sufficiently developed; because it is otherwise fully engaged; because the nature of the enterprise, useful though it may be, is such that specific return cannot be expected, or because the enterprise would be difficult to organize otherwise than governmentally; or because, as in the case of the Panama Canal, private enterprise has failed, or because the enterprise has been undertaken by the government merely in obedience to local pressure and without any prospect of eventual usefulness, the only object being the local expenditure.

273. *Diversion of capital.*—Governmental employment of capital means, however, diversion of it from use by other agencies. Even if the government refrained from using national accumulations and borrowed abroad for its requirements, its operations would restrict the credit of the nation otherwise. If we were to suppose that the amount of capital available for

[1] How far governmental distribution can reach the desired end is discussed elsewhere.

either governmental or private employment is a fixed quantity, which would be utilized in any event, then its direction, provided it were employed equally productively, would not affect the "national dividend."

But capital cannot be looked upon as a fixed quantity in any one country The government or private individuals may draw capital from abroad, and sometimes the government can do so when private individuals cannot. Moreover, if the government draws more than a certain amount (this amount depending upon the conditions of the market), private individuals in the same country may find it difficult to draw enough for their requirements or, indeed, any at all. Thus, unproductive expenditure by the government may act very injuriously by absorbing the borrowing powers of the country as a whole. This applies also where the expenditure is not necessarily unproductive in the large run, but only unproductive in the immediate sense, for the demands upon the market are the same in amount, although they are not the same in character.

The heavy borrowing of municipalities in Great Britain prior to 1903 exercised an important influence in depriving the money market of liquid funds seeking investment, and the heavy borrowing of the Canadian governments and municipalities during the decade between 1903 and 1913 had the same effect.

If the character of the consumption initiated by the government is unproductive, or if the period during which it becomes productive is very remote, such consumption may result in a greater diminution of the resources of the nation than would have been the case had the government refrained from the enterprise altogether. On the other hand, governmental expenditure may be more wisely conducted than private expendi-

ture and may, therefore, eventually conduce to greater increase in the "national dividend."

274. *Voluntary consumption for social use.*—In the Middle Ages such consumption was probably proportionately greater than it has been in modern times. Bridges, hospitals, schools and colleges were built and endowed by pious benefactors. Many of the functions which are now exercised by the State were in earlier times exercised by the people. The care of the poor, for example, which in modern European countries is an affair of the government, was in the Middle Ages an affair of the pious. In modern times large benefactions are continually being made for public purposes; parks, hospitals and other public places are being given by individuals or are being subscribed for by many for social consumption. Many of the sums of money so devoted are withdrawn from individual expenditure and from immediately productive uses. It is clear that here, also, a certain proportion between the productive consumption and consumption which is not directly productive must be observed. Even charitable endowment may go too far. A charitable trust may be so heavily endowed and so administered that it becomes a public danger. Locking up large sums in endowments and the devotion of the proceeds of estates to charitable and to ecclesiastical purposes have, in many countries, frequently assumed so great dimensions that the practices have had to be checked by legislation.

CHAPTER II

CONSUMPTION FOR PERSONAL USE

275. *Personal requirements.*—Consumption for personal use may be considered under the same three heads as those into which national consumption has been divided. These are: necessities, conveniences and luxuries. It is impossible in practice to draw as sharp lines between these as if they were regarded as indications on a scale, nor could the scale which might be applicable to one person or community at one time be regarded as applicable at another time or in a different community. Nevertheless, the division has a certain importance in respect to the relative value which is attached to commodities according as they appear in one or another of these divisions.

In addition to the vertical method of classification, as it may be called, demand for consumption may be classified horizontally into the following classes: food, clothing and shelter. There are other needs which do not require at the present moment to be considered, because they do not necessarily or directly result in a demand for commodities and, therefore, do not in the strict sense result in consumption.

The three categories first mentioned may be applied to food, clothing and shelter. In any general survey of social groups of the same race and in groups of different races, we encounter the widest difference. For

the nomadic life, food is essential always, clothing generally, shelter occasionally. For settled husbandry or industry, shelter and clothing are almost, if not quite, as essential as food; indeed, social pressure is such that in some races the desire for clothing to an extent which might be regarded as luxurious is stronger than the desire for food; and there are some groups of people who live penuriously in large houses because they attach importance to an external appearance of wealth. Such expenses may be unusual, but the relative importance which people attach to the different orders of consumable goods affects demand profoundly.

276. *Food.*—An inquiry into the history of food would reveal an extraordinary diversity of plants, animals and even minerals which are used as food. The law of substitution plays a large rôle. When one variety of food is difficult to procure, other varieties are sought. Thus, when the grains possessing superior nutritive power or superior attractiveness to the palate are scarce and expensive, other grains and even other substances than grain are consumed. In Northern Russia and in Sweden when the grain harvest is poor and the peasants experience a deficiency, they mingle the ground inner bark of the pine with flour in bread. The astringent property of the pine bark is indeed valued to such an extent that even when grain is not scarce, peasants may be found who adopt this practice. When the grain harvest is poor, also, the peasants habitually sell their grain, which they can do on such occasions at relatively high prices, and buy potatoes, which though not so nutritious, nevertheless, satisfy their craving for food.

Some races have invincible preferences for certain varieties of food and approach other varieties with great

reluctance, although these may be consumed freely by others. Civilized man in general dislikes food which has become putrid; primitive man is in general not averse from consuming fish which has been, to his palate, improved by long keeping, and even civilized man likes his game "high." So, also, the delicacies of one race are the abhorrence of others, except in cases of need. For example, the so-called edible dog is regarded as a luxury in China, while other kinds of dog are not consumed. In Europe, the dog is not usually consumed at all, although during the siege of Paris in 1871 all kinds of dogs were to be obtained on the stalls of the butchers. Horseflesh is extensively consumed in Germany; and perhaps not at all in either England or America. The *tabu* which plays so large a part in primitive social organization has many forms, but among these there is the *tabu* of certain plants or animals which have been found, in general or on occasion, to produce disease. In regions where the species in question do not produce the same consequences, the *tabu* does not exist.

The appropriateness of food depends upon latitude and longitude. In the tropics, fruit is plentiful, but at certain seasons its consumption is attended with danger. One of the difficulties of the acclimatization of Europeans in the tropics is the reluctance with which the European consumes the same food as that which is consumed by the native tropical races.

The relation between food and work has been to some extent worked out in connection with the formulation of army and prison dietaries. Details cannot be given here; the dietaries themselves should be consulted.

It is very clear that industrial efficiency, insofar as it depends upon the exercise of muscular energy, must depend eventually upon the constant recuperation of

that energy by appropriate and readily assimilable food.

277. *Clothing.*—The customs regarding clothing have radically changed since the end of the eighteenth century. Until about that time the people of each country, each district, and in some countries, each village, wore a characteristic dress, and their dress was further differentiated according to the class, profession or trade to which they belonged. This state of matters was not due to legislation, although legislation sometimes enforced an already established practice. It was due to the independent evolution of design in clothing on the part of people who made their own clothing for the special purposes of their own handicraft or profession, and who sometimes bestowed skill and leisure upon its decoration.

The art of embroidery and lace-making were much practised throughout Europe, and the products of these arts in different regions were characterized by the difference in design which arose from the circumstance that in each place the growth was indigenous. The laces of Venice, Valenciennes, Brussels and Honiton were among the most celebrated. The people of Brittany and those of the Landes, in France, and many of the villagers in different parts of Austria still wear the characteristic costumes of their villages. In Somersetshire in England embroidered "smocks" may still be worn by farm laborers as the "blouse" is still worn by the Parisian artisan. The Japanese artisan wears a coat upon which his trade is indicated by the sign for it. Survivals also occur everywhere in the preacher's gown, in the gaiters and apron of the bishop, in the doctor's hood, in the silk gown of the King's Counsel, and, above all in the uniform of the policeman and the soldier.

Since the growth of variety in design was due to indigenous manufacture in various places, there was a tendency toward general uniformity so soon as the manufacture of certain textiles became concentrated in one or in a few places. The risk attending the wearing of expensive clothing and the destruction of aristocracy in France contributed to the change, but the policy of centralization and uniformity of the Napoleonic régime did more to carry the change in clothing into effect in that country. Throughout Europe generally, the decay of class distinctions contributed, with the causes relating especially to manufacture, towards other results which may now be seen.

It is quite impossible from the clothing of a person to determine to what country in Europe he belongs, and it cannot be affirmed with certainty, except in extreme cases, what is his profession, trade or position in society. The same is true, also, of America. The manufacture of ready-made clothing was practically unknown in 1850; now the ready-made clothier may be said to clothe both man and woman kind. The standardization of clothing has followed the extension of its manufacture, and uniformity has been the necessary consequence. Formerly, where every stranger in Paris wore an unique costume—the Arab in his *burnous* and the peasant of the Landes in his velvet jacket and silver buttons might be seen any day and no one turned to look—now where everyone looks alike, a strange costume attracts unwelcome attention. This is true of almost every city in Europe or America. In Asia, Japan only has to a slight extent, and only in the cities, adopted European uniformity.

278. *Shelter.*—The question of housing people is not less important than that of clothing them. Housing

also has a long and varied history. The growth of domestic comfort is, however, a very modern affair. The palaces of the Pharaohs and of other Eastern sovereigns of early civilization were sometimes very extensive. They had numerous rooms and evidently were managed by a formidable administration; but there is little evidence of comfort in their interiors.

Glass is an ancient invention, but its production in large sheets is comparatively modern. Until the close of the Middle Ages there was very little glass even in the great houses. Rooms were dark and ill ventilated or they were open to the wind. Horn was used to some extent, but even when thin it is not extremely translucent and cannot be obtained in large pieces. Oiled paper has been used in Japan for ages, but it does not appear to have been used for windows in Europe.

Chimneys were uncommon even in great houses until after the Middle Ages, and there are numerous comforts of a minor kind which in the medieval house were unknown.

Those who have seen a peasant cabin lighted by a single rushlight will realize what the interior of a house was like before candles were introduced. There was, indeed, little light in any houses until the use of gas as an illuminant was adopted in the beginning of the nineteenth century. There are, or were, until recently, towns in northern Italy where oil lamps were hoisted at street corners by means of a rope and pulley. The darkness of the towns until the middle of the nineteenth century offered facilities for crime and diminished the duration of the working day in many industries. Electric lighting has transformed the streets and has led incidentally to great improvement in gas appliances. Numerous inventions have made the interiors of houses

potentially, and to a great extent actually, vastly more habitable than they were a hundred and fifty years ago; but the same improvement cannot be said to have taken place externally. Domestic architecture has not kept pace with interior domestic devices.

279. *Philanthropic housing experiments in Europe.* —In the villages and smaller towns of western Europe workmen frequently own the houses they occupy; but this is very rare in the larger cities. From the point of view of the workman it is not altogether desirable that he should do so even if it were financially practicable. The ownership of a house limits his freedom of movement and thus, on occasion, fixes him to a particular employment and thus limits his earnings.

The earlier experiments in the housing problem— those, for example, of the Peabody Trust, and Lord Rowton in London; those of the municipalities of Glasgow and Liverpool and of various housing companies in New York were carried out before the development of urban transportation. It was then supposed that the workman must live as near as possible to the scene of his daily labors; that he could afford neither the time nor the money to transport himself from a distance. In consequence of that doctrine, the tenement houses built for the occupation of workingmen under these semi-philanthropic schemes were invariably built within the industrial districts, and frequently on land which was in demand for industrial purposes and which was, therefore, high in value. The general result of those experiments was not, therefore, by any means as satisfactory as had been anticipated. Even at rents which yielded a net return of some 4 per cent upon the capital invested, the rents were so high that only the élite of the working class could occupy them, and those for

whom they were primarily intended could not afford to do so.

At a time when the professional classes and others with incomes only a little higher than those of workingmen were anxious to get into the suburbs of towns, where they might have fresh air, cheap land, moderate rents, the workingman was provided by well-meaning but mistaken philanthropy with houses in the centre of towns at a ruinously low rent to the promoters of the enterprise, and a ruinously high rent to the workingman. In some cases counsel that appeared to be wiser prevailed, but even this was rendered of little effect by neglect of some fact in human nature which should have been taken into account.

280. *Typical results.*—Nothing, for example, could be more magnificent or more dismal than Pullman City, near Chicago, or the similar experiment of M. Godin at Guise, in France. Both of these housing experiments were carried out in newly created industrial centres, and they might have been successful had the promoters not desired to standardize houses as they standardized, on the one hand, sleeping cars, and on the other, kitchen stoves.

While enthusiastic interest in any social scheme is very valuable to the promoters as a discipline, it is usually of small importance to those who most need the aid of philanthropy, and who are also, no doubt, reluctant to ask for it. The reason for the disappointment which usually attends philanthropic housing schemes is that such housing experiments are usually accompanied by efforts for the improvement of the people. Working people in steady employment do not care to be patronized, do not care to have the locality where they must live determined for them, and, above

all, do not care to be embarrassed by regulations. They are disposed to buy their houses or to rent them on the same commercial basis that they buy their tea and sugar.

The extension of municipal boundaries and the development of urban and radial transportation has altered the problem materially. Yet the arbitrary selection of an area for the development of a working class district by a philanthropic or semi-philanthropic agency is likely to result in disappointment.

281. *Experiments by employers.*—Experiments in housing by manufacturing enterprises for the benefit of their workmen have also very rarely been successful. The reasons are, *first,* that occupancy by a workman of a house belonging to his employer is looked upon as interfering with independence and liberty; and, *second,* that, unless in the district in which the works and the houses are situated, there is employment not only for the head of the family but for the younger members of it, there will be reluctance on the part of the workers to occupy the owner's houses. An instance of both of these objections is to be found in an experiment which was made many years ago by the Singer Sewing Machine Company. That company established works on the Clyde about nine miles from Glasgow on a site not previously used for industrial purposes. As it was at a considerable distance from the nearest centre of population, the company built a number of houses for the purpose of providing accommodation for its workers. The workers who were recruited by it had lived in the extreme east end of the city, while the works were beyond the extreme west end. The sewing-machine works employed men almost exclusively, while the women were extensively employed in the factories in the east end.

Partly for this reason and partly because the men conceived that they would in some measure place themselves in the power of the company and would diminish their opportunities for changing their employment if they wished to do so, they continued to travel daily the twelve miles which intervened between their accustomed houses and the works where they were employed. They did this in spite of the fact that their houses were situated in what may fairly be called "slums," while the works were in a healthy suburban neighborhood, at that time almost unbuilt upon. They were enabled to perform the daily journey by means of extremely low weekly (commutation) tickets on the railway.

282. *Houses owned by workmen.*—In the industrial towns and on the boundaries of the great cities in Canada, the workmen own the houses they occupy, to an extent quite unknown in Europe. The relative elasticity of the municipal building regulations, as compared with those of European cities, accounts for this condition to a large extent.

In 1905 and 1906 a ring of workmen's houses of the simplest kind of construction grew up round Toronto. Most of the groups of houses were built upon land which at that time had not been brought within the municipal boundaries. There were no streets, although there were street allowances; there was no drainage, no water supply, nor were there any civic services whatever. The land was cheap; $4 per foot frontage (amounting to about 5 to 6 cents per square foot) was the normal price. Thus, for $100, payable in instalments, a workman could acquire fifty feet of land frontage; for $50 to $100 he could build a rude "shack" which was sufficient, after a fashion, to house his family. So long as these new, imperfectly urbanized areas were

scantily inhabited, conditions were quite endurable; but as the "shacks" became more numerous and the population more dense, the absence of proper sanitation, fire protection and the like rendered the existence of this "ring of shacks" more or less of a public danger. The boundaries of the city have been extended, and the "shacks" have been gradually replaced by brick houses or have been repaired with brick. The value of the land has advanced considerably and the generation of workmen who built "shack town" has benefited by this advance. But the problem of housing for those who were not fortunate enough to arrive in time to take advantage of the conditions of 1905 and 1906, is as acute as it was before "shack town" existed.

283. *Subject to economic laws.*—It is obvious that the provision of housing accommodations upon a scale commensurate with the growing industrial population is quite beyond merely philanthropic or semi-philanthropic agencies. The demand for houses, in so far as it is effective, may be counted upon eventually to result in an adequate supply. This has been the experience of all cities. The supply may, indeed, as it does occasionally, exceed the effective demand. In Great Britain the normal course of the history of housing is as follows:

When industry is brisk, when people crowd into the towns in consequence of the difference between urban and rural wages, there is a great demand for houses, rents advance and there is a strong inducement to build. But the high rents notwithstanding, capital invested in house property rented to working people does not as matter of experience yield a high net return under normal conditions. The depreciation, the trouble of collecting rents, and the risk of loss are all considerable.

Compared with the profits which may be obtained from manufacturing industry in periods of brisk trade, the business of house letting is not remunerative. It is thus not until the period of brisk trade is over and capital, which has been occupied or has just been made in business, is seeking investment, that building begins before rents fall from a cessation of the influx of population.

The same conditions obtain, other things being equal, in new countries, with this qualification, that under a system of protection, where such exists, the profits of manufacturing or trading enterprise are even under normal conditions so much greater than the customary yield from rented property, that there is little inducement to embark in the house proprietary business. Housing is thus more likely to be a continuous problem in a new country than in an old one, even though the price of urban land may be low. If, however, the price of urban land is forced upward by demand for manufacturing or trading purposes, working people and others who desire houses at moderate rents or at a moderate price must go outside of the boundaries of the cities to procure them.

It should be observed that insofar as by means of philanthropic or semi-philanthropic effort commercial house building is met by subsidized competition, there may be a temporary reduction of rents, because of the increased supply of houses, but if this occurs the inducements to enter into the business will be diminished and unless increased philanthropic efforts are made, there will be a tendency for rents to advance to their former level, provided the demand for houses increases.

When the supply of houses is deficient in relation to the demand for them, there is usually much overcrowding. When this condition occurs it is necessary, in the interests of public health, to enact and to enforce stringent measures to prevent it. If the enforcement of such measures is not continuous and uniform, it may lead to further increase of rent in certain localities. If, however, it is continuous and uniform, it will tend to disperse the population and to prevent undue density in any one locality.

284. *Miscellaneous personal consumption.*—In the rural districts of all countries, miscellaneous consumption is much less than in towns, although during the past century the general increase of such consumption has been manifest. The extent and character of miscellaneous consumption varies, however, in different races, and varies also with the income among people of the same race. The Italian peanut vendor in New York, no matter how slender his income, spends his evenings at the Marionette Theatre, as the Jewish garment worker spends his at one of the Yiddish theatres or at one of the numerous Jewish clubs in New York. In Russia, a concertina has become almost as necessary to the peasant as a red shirt for holidays. The so-called "millinery openings" at Winnipeg indicate a large "miscellaneous consumption" in farmers' families in the North West. In the towns everywhere amusements of many kinds absorb much of the earnings of people of all classes.

Among workingmen, as among the professional classes, miscellaneous expenditure has increased with the leisure obtained by the shortening of the hours of labor and by the increase of professional incomes. Life in general has become less rigid and more varied. Life involves more strain and requires more relaxation. It has become evident that in times of prosperous trade, the miscellaneous expenditure of all trading classes as-

sumes large proportions. Luxurious expenditure upon automobiles and the like accounts, indeed, sometimes for a very considerable proportion of income. The concentration of the population in towns has contributed largely to the increase of the total of luxurious expenditure by the people.

Increase in miscellaneous expenditure is, in general, a decisive indication of a change in the standard of comfort, even though the miscellaneous expenditure may not be judicious. That there has been a very general rise in the standard of comfort throughout the world during the past century there can be no doubt. It may be that the total of human toil has not been lightened; but the total of human production has been greatly increased and this increase has gone partly, although not wholly, into increased consumption by the mass of the people. This increased miscellaneity of consumption may be held to the due to change in the plane of economic life.

For example, during the period since the revolution in Japan, that country has become gradually commercialized, and the mercantile class has been adopting American and Western European modes of transacting business. They have been doing business on a larger scale and have been incurring increased responsibilities. The simplicity and frugality of Japanese life has thus become no longer possible for the more important merchants. Although, so far as practicable, they retain the older mode of life for their families, they find they cannot do so for themselves. They find that the customary Japanese diet does not provide them with the additional amount of nervous energy which they require for larger affairs. They, therefore, adopt a compromise—living partly in the Japanese and partly in the American or European manner in respect to food, and increasing their miscellaneous expenditure even in ways distinctively Japanese.

285. *Proportions of the constituents of consumption.*—Many inquiries have been made by means of the collection of family budgets into the proportions of expenditure upon the various kinds of consumption. The general conclusion has been arrived at, that in the case of the lowest incomes, the actual cost of subsistence accounts for the larger part of the expenditure, amounting approximately to 60 per cent of the total. The proportionate cost of clothing is very small in the lower incomes, increases in the intermediate incomes and declines again in the higher incomes. The proportionate cost of house rent, fuel and light is approximately the same whatever the income, although in cases of very high incomes it is somewhat less than in the case of intermediate incomes. In the very lowest incomes it is often greater in proportion than in the intermediate incomes. Miscellaneous expenditure increases steadily with the income; in the case of very high incomes it forms a large proportion of the total expenditure.

286. *The cost of living.*—Variations in the cost of living may arise in one or the other of two ways; either the consumption has varied in quantity or in character, or, the quantity and character remaining unaltered, prices of the consumed commodities have changed. The standard may be reduced or raised without altering the cost of living if, when prices rise, the comfort is reduced, or if, when prices fall, the comfort is increased, provided the rise and fall of prices apply to the commodities which comprise the consumption. A farmer, for example, who has reaped an inferior harvest of wheat or rye, will sell what he has of these grains and buy inferior

grains or potatoes. His cost of living will be diminished, if he previously consumed wheat or rye; but his standard of comfort will have declined because he has been driven to consume less nutritious food. On the other hand, an artisan accustomed to the use of potatoes may find if there is an unusually abundant wheat or rye harvest that he can raise his standard of comfort and can consume more nutritious food than he had been accustomed to consume because the fall in the price of these grains brought them within his reach without increasing his expenses or cost of living.

When, owing to some wide general cause, the prices of the commodities customarily consumed by the mass of the population advance, the cost of living increases and at the same time owing to the difficulty of adjusting incomes to the increased expenses necessitated by the advance of price, consumption diminishes and the standard of comfort declines.

This condition was experienced in "the dear years" (1802 and 1803) when the necessaries of life rose in price and when people normally above the pinch of want found that they had to stint themselves of things that they were accustomed to regard as necessaries. Salt, for example, rose to so high a price that even well-to-do people had to forego the use of it.

During a period of rising prices, possessors of stocks of commodities gain, and their standard of comfort tends to rise because with their stocks they can purchase more of certain commodities than they could formerly purchase. In the very rare case of a general rise of prices of commodities, holders of stocks of commodities could employ more labor or they could hoard the funds derived from the sale of their stocks.

When prices of the necessaries of life fall, the standard of comfort of the mass of the people rises, provided their incomes remain the same. This seldom occurs, for although the wages of labor do tend to rise and fall because the prices of necessaries rise and fall, the movements are rarely coincident. In the interval the wage earner gains when prices are falling and loses when prices are rising. The sharp fall in the price of wheat which occurred after the battle of Waterloo had closed the epoch of the Napoleonic wars, ruined the farmers, but benefited the people. Although wages of agricultural laborers soon fell, the wages of artisans were probably not seriously affected, at all events, for some time afterward.

287. *Changes in 1850 and 1875.*—The rise in prices which occurred in the fifties of the nineteenth century affected chiefly those commodities which entered into shipbuilding and railway construction, as also did the rise in prices which occurred in the early seventies. Rents advanced in the towns owing to the migration to them from the rural districts on account of industrial activity and agricultural depression. Wages in the towns were high and the standard of comfort of the mass of the population was raised. In some industries (in mining, for example), wages rose to a very high point and the mode of life of miners was for a time entirely altered.

About 1875 industry declined and prices of the stable commodities fell, so also did wages and the former standard of comfort was, in effect, resumed; and as the depression deepened, although prices were low, the standard of comfort was low also, because wages had fallen. It was not until 1886 that prices began to advance. The labor market improved, wages rose and an advance in the standard of comfort followed. Low prices thus

do not necessarily involve improved comfort nor do high prices necessarily involve diminished comfort.

288. *Prices in 1890–1909.*—It is obvious that not all commodities enter into normal domestic consumption, so that a curve showing the increases in prices of the great staples would not necessarily throw light upon the cost of living. It is possible, however, to take certain selected commodities which enter largely into domestic consumption and to inquire what the course of prices of these commodities has been over a certain period. By way of illustration, we may take the prices of grains (wheat, barley, corn, etc.), of animals (beef, bacon, mutton, fowls, etc.), of dairy produce (milk, butter, cheese, etc.), of fish, of groceries (tea, coffee, sugar, etc.), of textiles (cotton, wool, etc.), and of animal products (leather, etc.), during the period from 1890 until 1909; that is to say, during a period of twenty years. The method of calculation by means of index numbers has already been described. The following index numbers reveal the fluctuation of the commodities in question, the average price of each group of commodities for the whole period being regarded as equal to 100, and alternate years only being taken.

	1890	1892	1894	1896	1898	1900	1902	1904	1906	1908	1909
Grains....	116	106	94	86	100	100	116	116	118	148	150
Animals..	110	110	100	83	97	104	122	112	130	129	149
Dairy produce.	104	106	105	90	93	109	108	107	120	137	134
Fish.....	102	91	96	103	100	107	112	119	121	122	134
Groceries.	120	104	95	87	95	93	98	101	103	110	108
Textiles...	111	102	97	97	95	110	102	110	124	111	109
Animal products	101	100	90	94	104	114	118	114	128	121	134

289. *Important increases.*—These figures suggest that the principal increase in price during the period,

although the increase is by no means continuous, has taken place in the products of the extractive industries—agriculture and cattle raising. The increase in the prices of grains may be attributed to the relatively inferior harvests of the later years (1908 and 1909); prior to these years the price had not advanced materially. The increase in the price of beef and other meats may be attributed to the diminution of ranching and to the high price of fodder, which rendered the feeding of stall-fed cattle unprofitable. For the same reason, dairy and animal products exhibit an increase. The price of fish has probably advanced owing to the increased consumption, due to the substitution of fish for beef. Textiles, which are the product of manufacturing industry, although primarily also the result of extraction, have fallen and so also have groceries, the latter being largely imported into the United States and Canada.

The advance in price of grains and of animals and animal products appears thus to indicate an advance in the cost of living between 1890 and 1909, with intermediate fluctuations of approximately 30 per cent. But these statistics do not afford the whole of the data connected with the cost of living. In addition to food and clothing, the relative costs of which the index numbers indicate, there are shelter and fuel as important items of domestic expenditure. In the urban centres, owing to the increased population of these, rents have undoubtedly risen, how much it is very difficult to determine. From various inquiries it would appear that in general the advance began to take place in 1901 and that it continued throughout the whole of the remainder of the period until 1909. The advance of rent appears to have been checked in 1911 or 1912, owing to the increase of building. Advances have, however, varied so

widely in different centres that it is impossible to give any figures which would fairly represent the general increase.

The costs of house building have increased materially owing to the advance of the wages of skilled labor and to the great advance in the price of lumber (another extractive industry). The index number of lumber was, in 1892, 104; in 1897, 164, and in 1909, 154. The prices of all fuel have, on the whole, varied slightly from the average, but furnace coal exhibited violent fluctuations during the period, as follows:

1890	1892	1894	1896	1898	1900	1902	1904	1906	1908	1909
122	106	62	110	98	156	158	97	157	100	116

Coal oil (U. S. standard) fell from 111 in 1892 to 69 in 1908 and 1909.

The cost of the necessaries of life appear thus to have advanced materially during the past twenty years; but they have not advanced uniformly. So far as may be gathered from the scale of general prices—that is, the scale of the bulk of the commodities which enter into consumption, not merely of a domestic but also of a productive character—the present period compared with the past periods is, however, not a period of high prices; but from about 1896 it has been a period of rising prices. Even now, notwithstanding the advance in price which has taken place, the scale of prices is little higher than it was in 1886 when prices reached the lowest point which, until that time, they had reached in the present century. They were destined to reach a still lower point in 1896.

290. *Conclusion to be drawn.*—The general conclusion may be hazarded that the sharpness of the advance since then, very much sharper than the decline from the high prices of 1874, has disturbed the economic equilibrium and that this sharpness rather than the magnitude of the rise of prices has also disturbed the minds of the people. It is important to notice that in respect to agricultural products, in which the chief advance has taken place, there can be no question of the influence of trusts, while in most cases where the influence of trusts is supposed to be considerable, for example, in coal and in coal oil, prices have either not been materially altered or have fallen.[1] A possible exception is the case of beef. Even, however, if the "beef trust" has manipulated the market in such a way as to control the price, which is open to doubt, the method of meeting this condition by a boycott, which appears to have been attempted, is by no means likely to attain the desired result. The higher the price of beef becomes the more inducement there is to produce it, and any artificial reduction of the price by means of a boycott, if such a measure were successful, would simply act as a deterrent and would tend to prevent capital and labor from embarking in the industry of cattle raising.

It remains to be noticed that while some portion of the increased cost of living is undoubtedly due to the increase in the prices of some of the necessaries of life, the other element in an increase of the cost of living, namely, the increase in the standard of comfort, has also to be taken into account. This is a matter difficult to investigate from a statistical point of view. There appears to be among dealers an impression that the price of clothes has not risen, but that the mass of the people wear better and more expensive clothes than they used to wear; and there is also the impression that their miscel-

[1] This is, of course, open to the suggestion that they might have been lower had it not been for the influence of the trusts.

laneous expenditure has increased considerably. We may, therefore, arrive at the provisional conclusion that at least some portion of the increase in the cost of living is due to the fact that the mass of the people demand and enjoy living at a higher standard of comfort than they enjoyed or demanded a few years ago. If this conclusion is correct, it accounts for at least some portion of the advance of prices through increased demand due to the increase in the standard of comfort.

CHAPTER III

PRODUCTIVE CONSUMPTION

291. *Consumption of natural resources.*—Natural resources may be divided into three kinds:

First, those resources which when once utilized are automatically renewed in a manner which makes the supply in effect continuous, although the quantity may not be unlimited—of this order is the power which may be derived from falling water and the resources in the water supply for other than power purposes.

Second, those resources which are similarly automatically renewed but in a manner which makes the supply periodical, as the power which may be derived from the tides.

Third, those resources which are also automatically renewed, but which are variable and uncertain in their supply in any particular area, as rain.

Fourth, those resources, the supply of which may be made continuous, partly through uncontrollable and partly through controllable natural forces, as the breeding of fish in the fisheries and the preparation of the soil and cultivation of plants as in agriculture.

Fifth, those resources which are sometimes replenished by natural forces, but which may be replenished by the appropriate application of labor and capital within a relatively long but not extremely long period, as the forests.

Sixth, those resources which are not renewable by any agency within any measurable period of time and

the supply of which, however relatively ample it may be, is nevertheless susceptible of exhaustion, as all minerals.

These resources in the aggregate constitute the material part of the potentially productive capital of a nation, and each nation possesses all of them in a greater or less degree. Some nations possess, as well, other natural resources, the exploitation of which in one way or another contributes to the natural income. The chief natural resource of Switzerland, for example, is the mountain scenery, which attracts tourists from other countries. The Grand Canyon of Colorado is a natural resource of a similar kind, as are the hot lakes and pink terraces of New Zealand. Mount Vesuvius may be considered as a natural resource of the same order.

292. *Conservation of natural resources.* — Anxiety about the conservation of the natural resources of a country is chiefly concerned with the economical exploitation of these resources, which are non-renewable, or the supply of which is renewable only after a more or less extended period of time. It is, however, also concerned with the economical exploitation of those natural resources which afford several different kinds of utilities, in order that care may be taken that they are not exclusively utilized for some of these to the exclusion of others. For example, the preservation of the natural beauty of waterfalls, like the Niagara Falls, is held to be as desirable from the point of view of utility as the exploitation of the falls for the purpose of obtaining power, and thus a limit has been placed by international agreement upon the amount of water which may be drawn from the river above the falls for industrial purposes.

Those natural resources which have mainly attracted

the attention of conservation commissions and associations[1] are mainly the forests, the fisheries and the minerals.

When industrial exploitation began vigorously in the United States, toward the end of the eighteenth century, the natural resources seemed limitless; vast forests extended in every direction, and only the slenderness of the population, which afforded but a relatively small working force, seemed to stand in the way of unlimited exploitation. Mere abundance induced habits of extravagance so far as material was concerned. The relatively high cost of labor led to the invention of labor-saving devices, but there did not appear to be any reason for saving material. Time was invaluable, but the abundance of material was even embarrassing. The forests, for example, were discommodities which had to be removed to make way for the cultivation of land and for the growth of cities.

Conservation commissions have advocated the retention of the balance of the national resources by the national government and the careful granting of these for exploitation under a regulative system; others have advocated a campaign of education of the public, with a view to the adoption of increasingly stringent regulative measures; others have appealed to the patriotism of the owners of coal fields in order to induce them to consider future generations; while still others have proposed to alter, by taxation, the existing conditions of exploitation. No doubt some or all of these measures would, if they were adopted, produce a series of reactions out of which there might eventually grow an increase in the "national dividend," but for our present purposes it is necessary

[1] The Commission of Conservation of the Dominion of Canada is an example of the former; the National Conservation Association, organized in the United States in 1909, is an example of the latter.

to inquire why it is that the conditions are as they are, as an indispensable preliminary to the serious discussion of means for their alteration.

293. *Exploitation of natural resources.*—In new countries, like the United States and Canada, a rapidity of production greater than that of older countries is essential for the national existence. The reasons for this condition may be put as follows: in European countries, which may be taken as types of long-settled communities, a large part, indeed by far the larger part of the social fixed capital (that is, capital invested in public buildings, roads and bridges) is the product of the labor of previous generations; the capital invested in them has long been subjected to the process of amortization, and the sole social burden is the maintenance of the fabrics.

In a new country there is, to begin with, no fixed capital and no organization of life. The early settler finds himself in a more or less constant struggle with nature. If he brings into the new country the desires of the old he may have to subject himself to enormous inconvenience to satisfy wants which, in organized life, are among the most common and most easily satisfied.

While driving on the Northern Canadian prairies in 1904 the writer encountered on the trail, about 150 miles from the nearest railway station, a boy driving an empty ox-wagon. The boy was 50 miles from his home and the same distance from the destination. The latter was a small town in which he was going to buy a few pounds of sugar, wanted for the use of the household to which he belonged. At the usual rate of progress of an ox—20 miles per day—the boy expected to accomplish his journey of 200 miles in a fortnight, leaving four days for rest. A farmer's wife at an even greater distance from a town or a railway station complained at the same period to the writer that the nearest shop was more than 100 miles away.

The absence of organized life is, of course, felt more or less acutely in proportion as the settler has been accustomed to it, wearied of it, unacquainted with it, or indifferent to it. Most of the European settlers in America, at all epochs, have been accustomed to some kind of organized life, while many of them have migrated from cities. Demand for the conveniences of life is thus long antecedent to the full supply of them.

At the beginning of the settlement of a new country it is indispensable that the most necessary of the forms of socially usable capital should be obtained as soon as possible. Therefore, compared with those to which the settlers were formerly accustomed, they must be crude. The easiest and quickest method is the best. The only consideration is satisfaction of the immediate want. The first house is a "shack" of logs, trees being remorselessly felled for the purpose. If the only available tree near the site is walnut or mahogany it is used without consideration of its exchange value under other conditions. Thus in the early settlement of parts of Ontario, walnut was used for ordinary building purposes and even sometimes for fences. In the construction of the Cuban Railway at least one bridge was built of mahogany because that was the only available wood in the neighborhood of the site.

As time passes and the population increases, social and private capital grow together. The generation of early settlers passes away but leaves behind it for the inheritance of the next generation an unexhausted balance of utilities. The new generation utilizes this balance, exhausts some of it and adds to it and so on. The prospect of extensive natural resources to which access is given

more or less freely (as by homestead laws and the like) induces immigration, and the new immigrants pass through the same phases as the earlier settlers.

Peasants from Galicia and Bukovina in Eastern Austria, for example, have left the villages in which they lived in comparative comfort—their houses being more or less well built—to live for a time in Canada in dug-outs.[1] So soon as they could accumulate sufficient savings, or so soon as they could establish credit sufficiently to borrow the necessary amount, they purchased timber and built houses for themselves, or they hired horses, cut down the timber on the government lands and drove it to their settlements for building purposes.

294. *Settlement in a new country.*—If settlers have to rely entirely upon their own exertion, apart from any possible aid from external sources, their progress towards comfortable and stable settlement, even though they are industrious, may be slow. It may be greatly increased in rapidity, although it may be rendered less stable, by borrowing capital with which they purchase at once the means of establishing themselves and of engaging immediately in agricultural production instead of providing makeshifts.

It is entirely possible for a farmer who is accustomed to hardship and who has the necessary skill of various kinds to establish himself without any external aid and without any capital to begin with; but the process requires a very vigorous constitution and frequently has its victims. Such a farmer would live on natural fruits and roots while he is finding the materials for and making makeshift agricultural implements. Exchange of wild fruits and herbs gathered by him would procure

[1] The "dug-out" is a square hole in the ground about six feet deep and of varying dimensions otherwise, roofed with a peak roof made of poles and coated over with clay.

seed potatoes, the quickest crop, and when his potato crop appeared, the major part of the troubles for such a man would be over. Almost precisely this course has been adopted by some of the Eastern European peasants who have settled in the Canadian Northwest. One group found large supplies of Seneca Root which they were able to sell for a sum sufficient to enable them to facilitate their establishment very materially. Their knowledge of herbs was in effect, as it proved, a part of their capital.

Cases in which the new settler has knowledge enough and self-control to attempt to establish himself in a new country without capital are rare, and thus borrowing becomes a practice, a matter of necessity. The settler also is rarely satisfied with the amount of land, generous as it is, which he obtains as a free grant; he wants to buy more land, and for this purpose he borrows upon the security of the land which he has received gratuitously and which he has improved.

Communities of settlers, especially those that have transferred themselves into a new country from the organized life of an old one, feel acutely the want of social and personal comforts to which they have been habituated. They thus embark the credit of the community upon the provision of water supply, electric lighting, street railway systems, civic buildings and the like in order that they may possess these comforts. Public and private borrowing cannot be conducted continuously without the payment of interest. Indeed, capital cannot be tempted out of its customary channels into distant and imperfectly known regions, without the inducement of a higher rate than can be obtained in the larger, better known markets.

Thus borrowing, public and private, involves increasing annual interest payments. The community must, therefore, tax itself to meet the public charges, and it must exercise its individual industry actively in order to meet at once its public and its private obligations. Repudiation of interest charges would lead to an immediate check in the inflow of capital, as it always has done in such cases, and this check would affect not only those municipalities or states which had repudiated but all others because a new element of risk would be introduced and would have to be compensated for.

The relatively high rate of interest which obtains in new countries and especially in the outlying parts of these is due partly to the difficulty of inducing the lending of capital in remote places because of the great proportionate risk under any circumstances, and partly because of the greater cost which compulsory recovery involves in isolated as compared with settled regions.

If the argument has been followed, it will now have become apparent why the United States and Canada must be occupied by people who work hard for an immediate return. The payment of interest cannot be postponed without serious, ulterior economic effects. The accumulated capital of the United States is not yet sufficient to enable it to avoid borrowing abroad without greatly restricting the rapidity of its development, the rapidity of its development being due in a great measure to the capital which it has borrowed from abroad.

295. *Effect of legislation upon the borrowing of capital.*—A sudden restriction of its industrial enterprise through legislative interference with the object of imposing a check upon the exploitation of the natural resources, if such legislation were effective, would have the same result as a restriction of the supply of capital

through a rise in the rate of interest. Indeed, such legislation, by diminishing the inducement for capital to go into such enterprises through the check imposed upon immediate returns, would have the effect of diverting capital from enterprises of this nature or from the country altogether.

It is true that the existing invested capital could not be removed and that if a confiscatory policy (to take an extreme case) with regard to the investments of foreigners were to be adopted, these investments would be purchased at reduced prices by native speculators. It would, however, also be true that not only would subsequent supplies of foreign capital be repelled but native capital would tend to be invested abroad because of the diminished security of investments. From these two causes the supply of capital would be diminished and the price of it enhanced.

Such a reaction did occur in the United States in the early eighties when, owing to the repudiation of interest obligations by some small municipalities, doubts were thrown upon the credit of municipalities in general. The result was the sale of municipal securities by American and other investors, the investment of money abroad and the consequent advance of the rate of interest for all municipal borrowings.

In respect to accumulated capital, Canada is in an even less developed position than the United States. The rapid development, especially between 1900 and 1912, was due largely to the investment and the temporary loan of external capital chiefly from Great Britain. In order to pay the interest upon this capital, very active production for an immediate return is necessary so that the stream may not be checked.

296. *Consumption of human life and energy.*—From

the social point of view it is extremely important that the life of the community should be continued at as high a level as possible. The human resources of a nation are, after all, its most important resources. Attempts have often been made to form estimates of the value of men considered in terms of capital. Every mature person has cost society a certain amount. He has enjoyed the protection and the services of the State. He has been educated largely or wholly at the cost of the State. He has been the cause of expenditure to his parents and to the public, during the whole period of his infancy and adolescence, and when he reaches maturity he may fairly be said to be a debtor for this amount, with interest and compound interest, if an exact calculation be made. It is, therefore, highly important to the community that each person who survives to maturity should survive long enough to enable him to repay this substantial debt by means of production of one sort or another. If his energy is worn out prematurely by too exhausting labor, or if for any reason he succumbs before the debt is paid, the community loses.

297. *Reactions of consumption upon production.*— Consumption reacts upon production from the movement of the population, from changes in the standard of comfort and from other causes, and results either in diversion or in net increase or diminution of demand. For instance, increase in the demand for cotton, due to the requirements of the Russian and Japanese soldiers in Manchuria (quilted cotton being the customary winter clothing of the region in which the campaign was fought), led to an increased production of both cotton and wool, and the high price of woolen yarns led to change in the production of mixtures of woolens and cottons, more cotton yarn being employed to replace

the more expensive woolen yarn. The effect of the campaign in this particular connection was to divert demand in the case of the commodities in question.

The emigration of large numbers of agricultural laborers and of artisans from Italy to the United States diminished consumption in the smaller towns in Italy and reacted upon the production of the villages, until the advance of the standard of comfort in both, owing to the influx of the savings of the emigrants, led to an increase of consumption and production alike.

An increase of consumption of a commodity will occasion in the first instance an advance in the price of it and then an increase in the production. The increase in the production will not only tend to diminish the price to the consumer, but a more wholesale method of production will diminish the cost of it to the manufacturer. A change in consumption may also bring into prominence a large number of new commodities and cause the practical disappearance of others. Examples of this phenomenon have been indicated in discussing the effect of change of fashion upon prices.

298. *Reactions of distribution upon consumption.*— When any of the elements in distribution increases or diminishes in amount, there is normally an increase in consumption of the class to which the element in question belongs. When there is an advance in rent, interest or wages, the landowner, the capitalist or the laborer who receives that advance not merely customarily increases the total of his expenditure but diverts his consumption from one commodity to another. A landowner whose rents have risen may enlarge his house or build a new one, and a capitalist who finds himself in the enjoyment of a larger income in consequence of a rise in

the rate of interest may discard his carriage and horses and begin to use an automobile.

When wages advance, the reaction upon consumption is almost immediate, the standard of comfort rises, greater variety and quantity of food are demanded, better clothing and larger or more comfortable houses. When wages fall, the contrary effects are produced. When wages are at a low level, the workers consume large quantities of bread; when wages advance, they adopt a more varied diet. During the recent years of relatively high wages, the quality of the clothing customarily worn by working people has risen sharply. This improvement in quality accounts in a large measure for the increased cost of clothing in individual budgets because textiles have not shared in the advance of prices.

299. *Reactions of consumption and exchange.*—The reactions of consumption upon exchange have already been discussed in connection with price movements. Here it may be noticed that price movements have an important effect upon consumption. The first effect of an advance in price is normally a diminution in consumption. Those consumers who are just able to afford a weekly consumption of, let us say, five loaves of bread when bread is at ten cents per loaf, will, if their resources remain unaltered, be unable to afford more than four loaves if the price advances to twelve and a half cents per loaf. Those consumers who are just able to afford five loaves plus the equivalent of one more loaf in miscellaneous food will have the option of cutting off either the miscellaneous food or one loaf; they cannot afford both.

Thus an advance in the price of bread will lead to diminished consumption of bread and also to diminished consumption of other foods. If, on the other hand,

the prices of miscellaneous foods advance out of proportion to the price of bread, the consumption of bread will increase and there will be a tendency for the price of bread to rise. During periods of depressed trade and low wages, bread is consumed to a much greater extent proportionately to the total expenditure than during periods of high wages. The price of bread, therefore, may be maintained even during a period of depression on account of this fact.

PART V: THE ECONOMIC ASPECTS OF THE STATE AND MUNICIPALITY

CHAPTER I

PROTECTION AND FREE TRADE

300. *Laissez-faire.*—The most important applications of the principles of production, exchange, distribution and consumption, discussed in the previous pages, are found in the relations between industry and government.

The State may refrain from interfering with either industry or commerce. Such an attitude results in what has been called *laissez-faire* from a maxim of the physiocratic writers of the eighteenth century. Even, however, if the State refrained from interfering with industry and trade, its activities would, nevertheless, influence the magnitude and direction both of production and exchange; for instability in external relations or in interior social order would affect industry and commerce more or less profoundly.

The policy of *laissez-faire* in a strict sense, has never been adopted by any of the modern commercial nations. It has been customary to apply the expression in a colloquial and inexact sense to Great Britain during the period from about 1830 until about 1870. This was the period of the initiation and development of free trade; but it was also the period of the growth of the factory acts. The subsequent period from 1870 until the pres-

ent time has also been a period of free trade; but it has been characterized by an unprecedented amount of paternal legislation.

The grounds of objection to the interference of governments with industry and commerce are that the government is less likely to know what should be done in the case of a particular industry than the persons who carry it on; that the consumer or buyer may generally be trusted to look after his own interests; and that if he were not to be trusted the intervention of the State would be inexpedient, because it would tend to destroy or to prevent the growth of self-reliance. The doctrine grew at a time when the State was not conspicuous for the competence of its functionaries, and when remorseless exploitation of the people by the State in industrial enterprises had assumed great importance, as in Russia, for example—especially from about 1720 until 1750. The doctrine of *laissez-faire* assumes prominence as a reaction whenever, either under an absolute or under a democratic rule, the State threatens to absorb industrial enterprises and to exploit the labor of the people.

301. *Regulating foreign trade.*—The State may attempt entirely to prevent foreign trade by means of decrees or enactments, as in the case of the Berlin Decrees issued by Napoleon I as a war measure against Great Britain.

On the other hand, the State may attempt to exclude by means of very high tariffs, which have the effect of prohibiting the importation of all or some commodities which might be imported if there were no prohibitory tariff. Such prohibitory tariffs are generally retaliatory, that is, they are imposed for the purpose of forcing commercial or political concessions from other nations. They may, however, be intended for the purpose of protecting native industries by imposing so high a duty that importation is impossible. If they are accompanied by measures which have the effect of encouraging exports, prohibitory duties may induce importation of gold for the purpose of creating a reserve, or for the rehabilitation of the paper currency, as in Russia, Austria and Italy.

302. *Protective tariff.*—A protective tariff is not necessarily prohibitory. It is intended to afford protection to the native manufacturer up to a certain point—that is, it limits the price at which imports will usually take place by the imposition of a duty, which is customarily assumed to bring the price of the foreign commodity plus the duty to the point at which the native manufacturer can compete with the foreign trader in approximately equal terms, a slight advantage being deliberately arranged in favor of the native manufacturer. Protection of this character does not necessarily limit competition except in so far as it does sometimes have the effect of excluding the foreign trader. It may be held that protection, by encouraging the establishment of manufacturing enterprises, may eventually increase competition within the nation. Experience has, however, shown that in countries which are committed to the policy of protection, one or both of two consequences ensue. Either the tariff is increased in order to prevent the domestic competition from reducing the price to a point at which the foreign exporter can enter into competition or the competitive manufacturers combine and form a trust. The trust under these conditions supplements the regulation of the tariff and neutralizes the competition to which the development of domestic industry, aided by the tariff, has given rise. If, however, the trusts compete with one another, to the extent that

the price is diminished to the point at which the foreign explorer can enter into competition, the price may be farther depressed unless the tariff again becomes protective by being increased.

The principle upon which the effect of tariffs upon prices may be determined has already been explained (p. 186). The more general effects under the conditions discussed briefly. A tariff system under the conditions of a rapidly developing modern nation has an obvious tendency to become very intricate because it must follow the increasing intricacies and inter-relations of industry and commerce. If it did not do so, the law of substitution would render it of no effect. As the values of goods alter in relation to one another the tariffs must follow these alterations; otherwise the manufacturers of some goods would be deprived of their protection while those of others would be over-protected.

The increasing intricacy of the tariff and the apparent or alleged need for frequent revision makes it notably a political issue. The effect of this condition is that the Government is drawn into the vortex of commercial relations. At one moment the interests of commerce are sacrificed to political exigency, while at another moment the wider political interests are sacrificed to commercial exigency. The interests of the two fields of politics and commerce are not identical because the first concerns what are assumed to be the permanent interests of the nation and the latter what are, in general, the temporary interests.

303. *Tariff for revenue.*—A tariff, no matter what its intention may be, acts as a protective measure unless it is offset by an excise duty upon native manufactures. It may, however, be a tariff for revenue only if it is imposed exclusively upon goods which cannot be the subjects of domestic manufacture. The tariff of Great Britain imposes import duties upon certain commodities, which are also produced within the country, offsetting these duties by similar duties of excise, and imposes import duties upon certain commodities, like tea, which cannot possibly be produced within the country. The tariff of Great Britain is thus deliberately non-protective. It is imposed exclusively for purposes of revenue.

A tariff for revenue of this kind cannot, however, form the sole or chief source of the national income. It must in practice depend chiefly upon the duties on excisable liquors and on a small number of commodities. Experience has shown that such sources of revenue cannot be relied upon to produce a stable income. They must be supplemented by other sources, of which mention has been made in another place (p. 185).

304. *"Free trade" in Great Britain.*—The State may impose no tariff except upon excisable goods or it may impose neither customs nor excise duties. A policy of this kind would be a policy of free trade in the strict sense. No nation adopts this policy. The nearest approach is made by Great Britain, which, however, as we have seen, really imposes a tariff for revenue. The same is true of India.

The near approach of Great Britain to a policy of free trade strictly so called is due to the following historical circumstances. The important inventions and improvements of mechanical appliances which were made in the eighteenth and in the early part of the nineteenth century were not only made in Great Britain, but the export of the machinery made under these inventions was forbidden, and so far as possible effectively prevented. But these inventions could not have been utilized had there not existed in Great Britain a class of free hirable

laborers, which at that time [1] did not exist in any considerable numbers in any other country. This class was free of obligations of the kind generally known as feudal—susceptible of being hired by any one and more or less mobile. The class was greatly re-enforced by the decline of agriculture, which took place upon the importation of foreign grains in spite of the duties which were then in force. These grains were imported largely from the continental ports in the earlier and from the United States in the latter part of the period.

When, under the pressure occasioned by the potato famine in Ireland, and by the fall of prices and the stagnation of wages in the early forties, the corn laws were repealed and the duty upon wheat gradually removed, agriculture was rendered still more unprofitable and the class of hirable laborers was still further re-enforced by the stream of unemployed agricultural laborers.

These conditions were contemporaneously almost absolutely reversed in the United States. There agriculture was a profitable industry, land was cheap and fertile. Grain could be produced in competition with the European farmer at a price that secured the market. Capital was attracted by the prospect of large profits from agriculture and the exploitation of raw materials, chiefly timber. Wages were high, the consumption of the working population came to so high a level that demand for commodities increased and prices rose. In the thirties of the nineteenth century every traveler in the United States was struck by the enormous activity. Yet this activity was concerned almost exclusively with primary exploitation and with trade; industry had hardly begun.

Great Britain, on account of the causes indicated above, had thus a great start in industrial development.

[1] Approximately between 1775 and 1830.

And the advantage which that start gave was maintained long after other nations entered upon the industrial phase. In many important industries, especially in shipbuilding, the advantage is still maintained.

The population of the industrial centres has become a highly skilled population, partly through hereditary influences and partly through practically continuous employment in industries requiring technical skill. The engineers and ship-builders of the Tyne, the Clyde and the Mersey, long ago acquired the skill which they have retained and developed, so that on these rivers is built the larger part of the ocean shipping of the world. Under the influence of this advance in ship-building and under the influence of early navigation acts and their reactions, Great Britain has retained, in a large measure, the position she obtained as the chief ocean carrier.

Thus, because of her large industrial population, and because of her carrying trade, the income from which forms a considerable portion of the total national income, it was at once possible and indispensable for her to adopt, and it has been indispensable for her to maintain, a policy of free trade. Indeed, her manufactures, which did not need protection when they were young industries, have really never had the experience of protection, and with few exceptions her manufacturing interests have never advocated it.

305. *"Fair Trade" movement.*—During the "long depression" from 1876 till 1886, a movement sprang into existence known as the "Fair Trade" movement. This was simply another name for protection; but when trade revived in 1886, the agitation subsided and nothing was heard of the subject in political spheres until the later agitation for "Preferential Trade." This agitation was,

however, deprived of its force by causes similar to those which put an end to the previous movement, that is to say, by a revival in trade.

It remains to be said that, in the event of the present sources of taxation in Great Britain being found to be inadequate to sustain the burden of public expenditure, an expanded tariff for revenue might have to be devised; and further that, if, owing to the adoption of free trade or of even quasi-free trade by the United States, the costs of production of any considerable number of manufactured articles were diminished in consequence of the adoption of that policy, it might be urged upon British statesmen with a cogency which could not be resisted, that the manufacturing interests of Great Britain ran risk of being ruined by American competition. On the other hand, the fact that the major part of industrial production in Great Britain is for export, renders it inevitable that foodstuffs, raw materials and partially manufactured goods must be imported by that country, duty free.

CHAPTER II

REGULATION OF DOMESTIC TRADE

306. *Municipal regulation.*—The regulation of industry in the Middle Ages was mainly an affair of the municipality. The rates of wages were fixed and employment at these rates was often made compulsory, while the privileges of trading within certain areas were reserved by the burgesses of the towns. The stringency of the regulations and the effectiveness of the quasi-monopolies which they involved led to appeals by those who were excluded from trading privileges to the State or the larger unit of administration. The pretensions of the towns were held in check by the curtailment or the abolition of their privileges, and the State either threw industry and trade open to unrestricted competition or it adopted regulative measures to replace those of the municipalities. Occasionally, the State confirmed a municipality in the possession of some privilege or in the power of enforcing some of its regulations. The centralization of administrative authority, in which France led the way in the eighteenth century, enabled the State to exercise regulative power over industry much more effectively and with much more uniformity than the municipalities had been able to accomplish.

307. *State regulation.*—Legislation intended to prevent "engrossing" or, in more modern phrase, "cornering the market," to prevent the use of false money and

false weights and measures, and to prevent adulteration of goods, is found in many countries. When the factory system developed, humanitarians urged the regulation of the hours of labor of women and children and of the conditions of labor in general. In spite of the opposition of those who doubted the wisdom of state regulation of industry on theoretical grounds and of the opposition of some of the manufacturers, and in spite of the apathy of the working people, the Factory Acts were passed in Great Britain. Then came the Mines Act for the regulation of mines and other acts of a like character. Legislative measures regulating industry in this sense were gradually adopted by all countries, beginning about 1840. In the United States, factory legislation is the prerogative of the several States, and its character, therefore, varies. In general, however, the English legislation has been taken as a model. In Canada, such legislation is in the hands of the provinces; and here, also, the English model has been followed by Ontario. The other provinces, although not highly developed industrially, have in the main followed the example of that province.

The factory system greatly facilitated the control of industrial conditions by the State. The most reliable contemporary authorities agree that prior to the wide extension of the factory system, the conditions under which labor was carried on were sometimes extremely bad. The labor of children was, for example, remorselessly exploited even by the parents of the children, both in Great Britain and in the United States. Indeed, labor carried on domestically is extremely difficult to regulate without an amount of interference with domestic privacy which would be impracticable. The factory system, notwithstanding its drawbacks, is probably an improvement upon the system which it largely supersedes.

308. *Arguments for and against.*—The general arguments in favor of state regulation of industrial conditions are: that the laborers are not, as a rule, able to insist upon the improvement of the conditions under which they work, even if such improvement is strongly advisable; and that social injury results from the deterioration of laborers when they are exposed to unhealthful conditions. The question of factory hygiene is, however, a part of the larger question of public health, generally, and the development of factory legislation has been coincident with a generally increased regard for public health.

The arguments against factory legislation are of wider application. They are directed against all legislation which in any way infringes upon the liberty of the individual. On this ground, Herbert Spencer and Auberon Herbert objected to nearly all the laws on the statute books of modern nations. They held that these laws involved restraints which led to a "new slavery" to the State and the complete subjection of the people to a horde of functionaries engaged in the administration of laws subversive of liberty.

While these may be counted extreme views, there can be no doubt that one of the dangers incurred by the adoption of an extensive and intensive system of regulation of trade and industry is the inevitable growth of a bureaucratic class which may become burdensome and even oppressive. Factory legislation has, however, until the present time, as a general rule, been confined ostensibly to those industries in which women and children are employed, adult men being only thus indirectly affected. The ground of the distinction is that adult men

are better able than women and children to insist on what they regard as proper treatment. The distinction is not maintained in the Mines Acts, which are based upon provisions for the safety of workers, irrespective of their sex or age, nor can it be really maintained in factories where men, women and children are employed together.

309. *Miscellaneous state regulations.*—The comparative failure of industrial combination to achieve by itself any great improvement in conditions had led the working class to demand legislation for the purpose of limiting the hours of labor. The struggle for a statutory eight-hour day, which has been going on for at least fifteen years in nearly all the European countries,[1] has been most acute in those countries in which the organization of labor has been least effective. There has, however, been in progress throughout the working class in all the industrial countries, an internal struggle between those who desire a larger share of political power in general for the working class and those who advocate the acquisition of benefits (like the eight-hour day) from governments under the existing political systems.

In addition to such interference with domestic trade and industry, nearly all States encourage invention by the granting of patents or temporary monopolies, and some States grant bounties upon manufactures. Canada, for example, grants bounties upon the manufacture of pig iron. Some States give direct bonuses to industries, and some municipalities grant land and cash bonuses, together with immunity from local taxation, for a period of years. This practice is extensively adopted by Canadian municipalities.

[1] An important incident in the Russian revolutionary movement of 1905–6 was the struggle for an eight-hour day.

In the case of states, the practice of granting bonuses to industries is not undiluted by the spirit of competition with other states, as the practice in the cases of the towns is deeply imbued with the spirit of rivalry between them. It is not unusual for towns to compromise their municipal credit by excessive granting of bonuses. When these have reached a certain aggregate amount, the burden of taxes becomes so heavy as to affect the local labor market. Under such circumstances, the bonused factory owners must pay the taxes through their wage bill, otherwise they would be unable to obtain laborers.

310. *Control of quasi-monopolistic enterprises.*—The most important series of regulations of the sort applying to specific classes of enterprises are those which relate to enterprises which in their nature are of a quasi-monopolistic character. Among these the most conspicuous are banks, insurance companies, railways, electric lighting companies, telephone companies, express companies and the like. The feature which all of these enterprises have in common is that each of them comes in contact with very large numbers, and in some cases practically with the whole of the public. This fact is the fundamental reason for attempts to regulate such enterprises and their predecessors in all ages. The service of the post (which corresponds to the modern railway) was regulated in Arabia at least as early as the tenth century. The services and charges of watermen, chairmen, and the like, were regulated throughout Europe from remote times as the services and charges of similar persons have been and are regulated throughout Asia.

The fundamental reason for such regulation is not the monopoly of the service, for many regulated services

are not monopolistic and many quasi-monopolies are not regulated. The reason is the universality of the demand for the service.

311. *Banks.*—The regulation of banks by the limitation of their right to lend money, by the limitation of their right to issue notes, by the requirement that they should publish summaries of their periodical balance sheets in a certain form, by provision for the inspection of their financial position and the like, is intended for the protection of the public, all of whom are assumed to avail themselves of the services of banks in one form or another. Thus, regulation of banks exists in all countries in respect to some or to all of these particulars.

In Canada the charters of all chartered banks expire at the same time, and are all simultaneously renewed by a decennial Bank Act. While anyone may start a bank, only chartered banks can issue notes. They are permitted to do so to an amount equivalent to the amount of their capital stock. Chartered banks are not required by law to maintain specific proportions of reserve to liabilities, but they must hold a certain proportion of their reserve in "legal tenders" of the government. Against these "legal tenders" the government holds gold, so that the government really holds a certain proportion of the reserve of the banks.

312. *Responsibility of government.*—When the government undertakes duties of the kinds specified in its acts, there is an implied obligation that these duties will be efficiently performed. In most countries there is an express provision in the law that the government cannot be sued in its own courts without leave from its own law officers. Such leave is never wisely withheld; because if it is refused, confidence in the justice and good will of the government must be diminished. Whether such leave

is granted or not, it is clearly incumbent upon the government to conduct its affairs with at least the regard for honor and justice customarily expected from its own citizens. The government, therefore, which undertakes to regulate, must inevitably do so or take the consequence. The consequence to a government which owes its position to a popular vote is that it may be dismissed.

An interesting example of recognition of an implied contract with regard to regulation of banks is to be found in the undertaking of the Canadian Government to compensate in some measure the depositors in a certain defaulting bank, on the ground that due precautions were not taken in the granting of the original certificate to the bank when it applied for its charter.

313. *Disadvantages of government control.* — The principle of responsibility of the government for the effectiveness of regulation is of wide application, but it seems an inevitable corollary of the regulative function. One of the arguments against governmental regulations is that it renders people careless about their own interests, and that it causes them to rely upon the government to look after them. Experience shows that this argument is to a large extent valid; that in point of fact, people who have not the means nor the skill to satisfy themselves on so intricate and difficult a question as the stability of a bank, *e. g.,* rely upon government regulation. It seems inevitable that the government should share the risk which a guarantee insurance company would share under similar circumstances. If the fees which the government receives should not admit of its bearing this risk or a share of it, the fees would require to be increased. Regulation which does not regulate is costly to the community at any price.

314. *Regulation of railways.*—The most conspicuous example of government regulation of special classes of enterprise is the regulation of railways. This is effected by various means. In England the railways are regulated partly by general acts, and partly by specific acts in respect to individual companies. The administration of these acts is entrusted to a Railway Commission and to the Railway Department of the Board of Trade. The former deals with disputes between railways, although these may also come before the Law Courts, and with disputes between the railways and the public, although these also may be made the subject of ordinary legal procedure; the functions of the latter are chiefly to administer the acts relating to safety appliances and the like, to hold inquiries into accidents and to act as intermediary between the public and the railways in case of need.

In the United States, the railways are regulated partly by State Railroad Commissions and partly by the Inter-state Commerce Commission. The former deals with questions arising within their respective states and the latter with those questions which relate to traffic between one state and another.

In Canada the railways are regulated partly by Provincial Commissions, as in Ontario, but chiefly by the Dominion Railway Commission. This Commission deals with all questions relating to railways. It approves and disapproves of rates submitted to it by the railway companies; and when these are approved they cannot be altered without notice. It decides questions of terminals and the like, and may within very large limits order the railway companies to do certain things.[1]

315. *Economic effect of railway control.*—The economic effect of the regulation of railways may be briefly considered. Although the function of regulation of railways was primarily urged upon the State by the trading public with the expectation that by some means the State might diminish the cost of railway transportation, it is doubtful whether this expectation has been realized to any material extent. In some cases, no doubt, where the rate charged by the company has been a *rack rate* —that is, a rate which was the highest rate which could be charged under conditions of effective monopoly—such a rate has been reduced by the action of a commission. But whether rates in general are lower than they would have been without any commission, is an extremely difficult question to answer.

If we assume that until the present, rates in general have been materially reduced below the point to which they would have been reduced by the railway companies spontaneously, we must conclude that the profits of railway enterprise have been also reduced. In that case it must be more difficult than it would otherwise have been to induce the investment of capital in railway enterprise. A check upon investment of capital means restriction of competition, and restriction of competition means relatively high rates. It might therefore be argued that government regulation of railways, in so far as it is effective, is not necessarily productive of a net diminution of the cost of transportation as a whole and over a long period.

A conclusion of this kind must, however, in the absence of sufficient data, be regarded as provisional. The regulation of railways in so far as it is concerned with compelling them to use safety appliances, however pecuniarily costly such regulation and its effects may be, may well be regarded as socially advantageous

[1] See also the section on "Traffic," Volume III of the MODERN BUSINESS text.

because it tends to diminish the number of railway accidents.

316. *The regulation of trusts.*—The most conspicuous example of government regulation of special features which occur in many enterprises is the regulation of "trusts." The expression "trust," as widely used in the United States, appears to have derived its special application to the form of industrial combination, which it now implies, from the Standard Oil Trust which was formed in 1882. This trust united, by means of a formal agreement, the large number of oil companies which had previously formed an "alliance." The original "alliance" was formed for the purpose of securing transportation for the product of its constituent companies by means of pipe lines and by means of agreements with the railways companies to carry the oil at reduced rates. Other combinations of oil companies were formed at the same time as the "alliance." Between it and the most important of these combinations there was a prolonged struggle which lasted until 1877, when the opponents of the Standard Oil "alliance" were defeated. As consolidated in 1882, the Standard Oil Trust absorbed altogether forty companies besides the business of a number of individual oil producers. Such was the original form of the typical "trust;" but as the expression afterwards come to be used, any group of persons who combined together with the intention of restraining competitive trade or of fixing the prices of commodities was regarded as a trust.[1]

The modern trust is thus the successor of the "engrosser" of the early part of the nineteenth century; and it has acquired a similar unpopularity. The "engrosser"

[1] This definition is abbreviated from the definition given by Mr. S. C. T. Dodd, Solicitor of the Standard Oil Company, in an article in the *Harvard Law Review* for November, 1893, on "The Present Legal Status of Trusts."

bought up all the grain or other commodity which his capital and credit enabled him to buy, fixed his own price and endeavored to hold the grain until he obtained that price. Sometimes he was successful; sometimes a good harvest rendered his scheme impracticable; sometimes his granaries were broken open by a mob and his grain distributed gratuitously; and sometimes he was prosecuted by the government. The modern trust may be regarded as being exposed to similar experiences.

317. *Standard Oil Trust.* — The formation of the Standard Oil Trust was accomplished by the appointment of a board of trustees, to whom the stock in the constituent companies was assigned by the owners; the trustees issued trust certificates in exchange, and dividends were paid to the holders of these certificates. This process gave the trustees the control of all the constituent companies.

This method was evidently adopted for the purpose of avoiding an accusation of acting in "restraint of trade." The Standard Oil Company had several imitators, and in 1890, one of them, the Sugar Trust, in respect to one of its constituent companies, was prosecuted.

The Supreme Court of the State of New York declared that the trust was illegal, and in 1892 the Supreme Court of Ohio ordered the dissolution of the Standard Oil Trust. The Sugar Trust then organized a new company, which purchased all the shares of the constituent companies; but the Standard Oil trustees simply divided the shares of the constituent companies among themselves and retained the control as formerly.

In 1899, however, the Standard Oil Company of America was formed under a charter of the State of New Jersey, and this company absorbed the stock of the constituent companies. The wide extension of the busi-

ness of the company, not only in America, but over nearly the whole world, the extent to which it influenced or controlled railways and steamship lines, and the embarkation of the group of financiers which administered its affairs into many other enterprises, attracted universal attention to the proceeding. They did not have a monopoly of the production of oil, although in 1904 they controlled about 84 per cent of the domestic and 90 per cent of the export trade.

Hostility to the company grew with its own growth. It was subjected to a series of prosecutions, and once again it was ordered to dissolve. The dissolution of the company does not appear to have effected any change in the control. The group which effectively controlled the company continue to control the elements of which the company was composed. The dissolution seems to have affected only its form, not its substance.

318. *Objections to trusts in the United States.*—The great *furore* against trusts in the United States is easily intelligible. The large company with its power over capital, especially through the banks which it controlled, over railways, and even over governments, appeared as a menace to the small trader. He could not compete with it; and it might intentionally or otherwise completely crush him. To the small trader such influence upon his banker and upon his railway company as the trust could exert are impossible, and he naturally regards the trust as an unscrupulous competitor.

In so far as the proceedings of the trusts are dishonorable, they cannot be defended; when they are illegal it is not beyond the power of the law courts to deal with them; but the demand that they should be abolished has been shown to be very difficult to satisfy. The trust is apparently an inevitable development of the joint-

stock company and is not really fundamentally dissimilar from a co-operative society. All industrial and commercial combinations, small or large, are organized for the purpose of making profit: the trust is no exception.

319. *Difficulty of dissolving trust.*—The notion that the State has it in its power to prevent the growth or to put an end to the existence of trusts appears to underlie the agitation against them. This notion is at least doubtful. Apart altogether from constitutional difficulties and from the difficulties which arise through the legal skill at the command of the trusts, another question arises. In what manner could a government or a court of law place an arbitrary limit upon the grouping together of persons for the purpose of performing an act or conducting a business which might legally be performed or conducted by an apparently smaller or different group of persons? Even if the State succeeded in imposing an arbitrary limit, in what manner would this procedure increase the "national dividend" or the national welfare? In so far as the question of preferences in railway rates or otherwise is concerned, it would appear to be practicable to prevent these by the consistent application of legal measures to those who practice them. It is indeed understood that very little discrimination of that kind now exists.

Beyond that, however, it is difficult to go. A change of name from several companies to one, or from one to several is quite unimportant if the same group of persons remain in command. Public hostility is, indeed, largely directed against specially conspicuous groups because they use or are alleged to use the power they possess unscrupulously, not because they possess the

power. If, then, unscrupulousness is prevented, a large part of the hostility must disappear.

320. *Stock watering.*—Apart from the public objection to the operation of the trust, interest has been aroused by the methods which have been employed in their organization. The aggregate capital invested in the physical plant of the constituent companies having been ascertained and deduction from or addition to this aggregate being made in respect to forced sale or forced purchase, the aggregate amount was usually increased by the amount estimated as representing the good will of the going businesses which were brought into the trust. This was sometimes done by means of a pool, without any re-issue of capital. But where the constituent companies were absorbed in a new company, which was formed for the purpose, or where the capital of each company was subjected to readjustment in view of the altered possibilities of the business, the aggregate of the elements above indicated were customarily converted into bonds or into bonds and preferred stock. These bonds or shares of preferred stock were transferred to the shareholders of the constituent companies as payment for their enterprises, or the shareholders were paid in cash as was arranged. In any event, the bonds and the preferred stock represented the whole of the cost to the amalgamating syndicate (generally composed of the chief among the officers of the constituent companies), of the plants and businesses which had been combined. The intention of the promoters of the combination was to increase the aggregate value of their properties by means of the combination.

Since the bonds and preferred stock bear a fixed rate of interest and dividend, it is clear that if a balance of profit should remain after the payment of the fixed

charges upon the bonds and the preferred stock, there would exist no means of *pro rata* division excepting by occasional or periodical bonus as the profit accrued. The effect of such a plan would be that if a bonus were anticipated or declared, the bonds or preferred stock (the holders of which being entitled to participate in the bonus) would rise in price. Under normal conditions the price would be the amount which the market estimated on the value of the bonds at the determined rate of interest plus the value of the bonus. If the holders of the bonds and preferred stock would sell neither the securities they held nor their rights to the bonus, there would, of course, be no market, nor would there be a market if all securities of the kind in question were so depressed that no one wanted to buy either the bonds or shares or their contingent rights at any price.

The only practicable alternative to the bonus system is the creation of common stock to be held by the possessors of the bonds and preferred shares for the exclusive purpose of providing a means whereby surplus earnings over and above fixed charges under the original financial arrangement, might be distributed. In one sense, this common stock is usually wholly fictitious because it is not at the beginning of the new enterprise represented either by capital in a physical sense or by good will as estimated by the parties to the original bargain.

Yet sometimes the stock even at the beginning has a present value, apart from a prospective value, because a part of the price of the bonds is paid for them in consideration of their being accompanied by a certain number of shares of stock. This discounted value is taken into account in the price of the bonds. The shares are, therefore, not in the position of being valueless, but are in the position of having attached to them a dis-

counted value in respect to possible future earning power.

If the company is successful, a dividend will eventually be paid upon the common stock; if it is not successful, no dividends will be paid and the company may even default in the payment of the dividends on its preferred stock and on the interest upon its bonds. In the former case the public will clamor for the stock in the market and will compete for the purchase of it, hoping to gain a share of the further anticipated profits of the successful enterprise; in the latter case, common stock and bonds will be alike unsalable.

It must be allowed that the practice of issuing common stock in this manner affords opportunity for fraud, through misstatements of the possible profits of the enterprise. The owners of the bonds and preferred stock usually retain in their hands a sufficient amount of common stock to enable them to retain effective control of the property. This makes it possible for them to manipulate the market in the common stock of their own enterprise with advantage to themselves.

Such reduced to a simple form is the process of stock watering. The effects of the process do not differ from those of the inflation of prices of land, with which indeed, some of the stock-watering operations are closely connected. Legislative measures against fraud are sometimes sufficiently enforced to diminish or prevent it; but no legislative measure can suffice to prevent people eager to possess something for which they have not toiled, from entering a trap baited with the thing they want to acquire. When fraud and ignorance have, however, been eliminated from the process known as stock-watering, there remains in it an element of deliberately accepted and discounted risk which is an inevitable con-

comitant of continuous business and which must be provided for in some appropriate manner.

The practice of stock watering as above described, is wider than the trust; but in most of the newer trusts it appears as an inseparable incident. Except in so far as the practice may be accompanied by deliberate fraud and except in so far as it may, owing to its nature, divert capital from really productive enterprises to apparently, but not really, productive enterprises, it cannot fairly be held to be socially disadvantageous, no matter how many people ignorant of business may be involved in loss in consequence. Such people may be expected to make foolish investments in any case.

321. *Conclusion of industrial commission.*—The conclusion of the Industrial Commission of the United States regarding trusts is that, assuming the cost of production of the commodities, which have been subjected to their influence, to have diminished, the margin of profit obtained by the trusts has increased, since prices to the consumer have either remained the same or have advanced. Such a conclusion would be equally difficult to defend and to refute. The assumption upon which it is based is, however, probably in many cases questionable. The law of diminishing returns in mineral exploitation, for example, seems to lead rather to an increase in the cost of production than to a diminution. Even if it were sound, in an economic sense, to attribute to the trust all the evils which popular imagination has suggested, the trust may be regarded as a morbid growth, like a *goître,* equally dangerous to sustain and to cut off.

322. *National ownership of land.*—The State may obtain the land of a country by discovery, by conquest or by purchase. It may either retain it and manage it

by State officials, or it may sell, lease or give it away in free grants. If the State retained and administered the land, it would be necessary, if it were to be utilized, to do so by means either of forced or of free hired labor. There are important historical instances of large areas of land being held and administered by the State both by forced labor (as in Russia, especially in the times of Peter the Great and Katherine II) and by free hired labor (as in Russia at the present time).

Given adequately skilful administration, there is, in the nature of things, no reason why the produce of a State domain should not be as large as that of a private domain of the same dimensions under similar management. Experience has shown, however, in every historical case, that considerations other than economic have compromised the economical success of State administration of land. The administration has been either too lax or too rigid. When it was too lax the State suffered, and when it was too rigid the people suffered, and often rebelled. In both cases the State lost materially and in prestige.

323. *Distribution of land a general policy.*—The practical difficulties which arose from the intimacy between the State administration and the economical relations of the people were so great that, in all highly developed modern nations, the policy of alienating the public lands has developed. This policy appeared to be necessary in newly discovered or newly conquered countries in which the population was scanty and to which it was impossible to induce immigration on other terms than by liberal grants or sales of land. Such grants or sales were made to individuals on conditions of settlement or to companies on condition of obtaining settlers. Direct revenue from the land, even if such a revenue

could be recovered by the State, was less important for the State than the establishment of people upon the land.

When it became necessary for the State, as it did both in Canada and in the United States, to facilitate the construction of railways, the only fund from which the State could draw without crippling the development of the country by the imposition of excessive taxation, was the fund in land. Large grants of State lands were thus alienated to the railway companies to enable them to borrow ready money for construction purposes.

In those cases in which the grants were corruptly or extravagantly made, it is reasonable to believe that the administration of the public lands, had it remained in the hands of the State, would have been equally corrupt and extravagant. But alienation appears to have been, in both countries, the only possible policy unless the occupation of the country by an adequate population was to be indefinitely postponed. It is obvious that in the struggle for land by different races, large areas cannot be held, except by the settlement of a population sufficient to resist invasion if necessary. Practically the whole of the public lands of both countries is either alienated or is in course of alienation, at all events in so far as any desire for possession has made itself evident.

The public lands having been alienated, resumption by the State can only be effected by confiscation or by purchase. The first method may be dismissed as being impracticable, apart from any question of justice to those who have been induced to become citizens of the respective countries by promises of free land; the second method appears to be equally impracticable because it would involve the practical endowment with State pensions of the bulk of the community and the release of great numbers from the labor of production. The

economic disturbance which such an operation would involve would be incalculable.

The same considerations apply to the acquisition by the State of the means of production other than land. The complicated mechanism of modern industry could not be acquired by any State without formidable international difficulties. Such difficulties would be great in proportion to the magnitude of the interests involved. The result of the operation, if it were carried out, might not be an increase, but rather a diminution of the "national dividend," unless it is supposed that production for the State went on as actively as it now does for individual advantage.

324. *Nationalization of industry.*—That it would be possible for a modern State to undertake gradually the administration of all industries and of all systems of transportation and the like—in other words, to possess itself of the means of production—may be granted. But when this is accomplished would the "national dividend"—that is, the aggregate of product—be less or more than it is now? If the characteristic of production under the capitalist system is a feverish haste in exploitation and manufacture, and if on social grounds this is a matter of objection, is it to be concluded that production under a system of State collectivism would be less in the absence of this feverish haste than it is now?

Even if the system of distribution under State management were ideal, there seems grave reason to believe that there would be less to distribute. It may be that the world is too well off and that it consumes too much; but it would be hazardous to diminish production on that hypothesis.

The fundamental social question is not, after all, one of distribution, but is one of production. The methods

of distribution are no doubt defective, but to diminish production is not necessarily a means of mending them.

It is suggested that this test of production may be applied to any project having for its object the nationalization of any industry. The experience of government management in all countries and among all races seems to show that it is, at least, doubtful if under nationalization of industry, so large a "national dividend" would be available as under the existing system. It is possible that the "national dividend" might be diminished even though the system of compulsory service in the army, which obtains in Continental Europe, were applied to industry, for experience has not shown conclusively that forced labor is as productive as voluntary labor.

The socialist Premier of France, M. Briand, did not act illogically, from the socialistic point of view, in calling out striking railway men as reservists and requiring them to return as soldiers to the work which they had left as railway servants. The close connection between compulsory service in one branch of the activities of the State and the probability of compulsory service in another could not have been more fully demonstrated.

325. *Trusts are a step towards national ownership.*—Such a test as is suggested above would not, however, by any means exhaust the subject. Neither increase of production nor improvement in the system of distribution are the sole ends of social life. Desire for political power to the extent of complete control of the executive government by the working class, in so far as such desire exists, is not likely to be diverted by fear of what must appear to it as the remote contingency of a possible diminution of the product of labor. For those who entertain the idea that the evolution of society is making

for the nationalization of the means of production, the trusts have no terrors. The greater the combination, the more effective the monopoly, the more definite the control over prices which the trust exercises; in short, the more nearly the power of the trust approximates to the power of the State, the more is proved, from this point of view, at once the necessity of owning, rather than of controlling the trusts by the State and the practicability of the management by the State of large enterprises. This view is, however, based on very large assumptions.

Apart from the question of the possible diminution of product under a system of complete nationalization of the means of production, there are also the questions of the international character assumed by modern commerce, and of the international character of modern capital.

The question of the position of those industries which the State might absorb is an important one. At present, holders of industrial securities are subject to the fluctuations of the market for such securities. When profits are high and trade is brisk, dividends are high. When trade is dull, dividends may disappear. If the State assumed the industries and undertook to pay interest upon the capital invested, on any conceivable basis of valuation, the State credit would be involved in the payment of a fixed rate of interest. At the present moment, there is a large class of security holders in all countries. Under the nationalization of industry this class would be enormously increased. Its interest would be by no means identical with those of the workers in the State workshops. A new and serious class struggle might easily develop between the security holders and the workers, even if a large number of the latter were to be found among the former. The security holders would require

to secure and to exercise considerable political power in order to prevent the possibility of repudiation. Any proposal to absorb industrial enterprises by merely confiscating them would not only divide society into two hostile camps, but would involve, in effect, the extermination of one of them. In any case it would appear that the socialist State would encounter problems not less serious than those which are now encountered under the capitalist system.

CHAPPTER III

TAXATION

326. *The revenue.* — The peculiarity which distinguishes the revenue of the State from private revenue is that while the amount of private expenditure depends upon the amount of income, the amount of the State revenue is determined by the amount of expenditure. Given certain expenses, the finance minister of the State is obliged to find the revenue to meet them either by collecting it from the people or by borrowing it.

Collection of revenue may be effected in two ways—by taxation or by receiving payment for direct services rendered to certain persons by State officials. The revenue from taxation is derived from the people. Under whatever form it may appear, it is a deduction from the incomes of those who contribute to it, or it may be regarded as a deduction from the available aggregate national income.

327. *Taxes on income.*—Taxes may be imposed directly upon those upon whom it is intended their burden should fall, or they may be imposed upon persons by whom they may be transferred to others. An income tax is an example of a direct tax and an import duty is an example of an indirect tax. The policy of a country as to the method of taxation must depend largely upon the customs methods to which the people have become accustomed. A tax which causes irritation is *prima facie* not a good tax.

For example, the people of Great Britain have become accustomed to an income tax, while in the United States the new income tax is unpopular because the people are not habituated to it. Income tax is levied in Canadian cities without formidable objection, but in Berlin an attempt to impose an income tax led to widespread refusal to pay it. A municipal income tax in Great Britain would be likely to meet with similar opposition. While heavy import duties upon manufactured goods and upon agricultural produce are in force in the United States and in Canada, such duties are not levied in Great Britain, and two recent movements, one in 1884 and the other since 1900, having for their object the levying of such duties, have met with hostility.

328. *Imports and exports.*—The interest of a creditor country, that is to say, a country whose people have a large part of their capital invested abroad, must lie rather in the facilitation of imports than in impeding them, because the interest of its foreign investments and the repayment of capital invested abroad are insured by these imports.

On the other hand, the interest of a debtor country, that is, a country which has borrowed heavily, may lie in discouraging importation, and in encouraging exportation, the latter being the means by which it meets its foreign obligations. When a country is borrowing, however, it must import, although it may not do so from the country from which it borrows. Canada, for instance, has been borrowing heavily from Great Britain, but has not been importing heavily from that country. The loans effected in Great Britain have entered Canada as imports from the United States. The transference has been conducted by means of the extensive credits established in favor of Great Britain, in the United

States through the interest upon investments there, and through the repurchase by that country of some of the securities formerly held in Great Britain. In the main, Great Britain has been selling United States securities and buying Canadian. This process accounts to some extent for the falling off in price of United States securities, because the domestic demand for them has not been sufficient to digest them at the price at which they stood when the British and European demand was greater than it is now.

The credit of a country depends very largely, although not exclusively, upon the character of its imports during a period of borrowing. If its imports during that period consist, in the main, of articles of luxurious consumption, its credit must diminish because it will be evident that the money which it has borrowed has not been productively employed. If, on the other hand, its imports consist in the main of iron for railway and other construction and of machinery, it is evident that the money it has borrowed has in the main been expended productively. It must be realized, however, that it is possible to strain credit by borrowing even for these purposes, because the expenditure in highly durable forms of capital may be greater than the general economic conditions justify.

329. *International trade depends upon comparative prices.*—Since the quantity of goods which a country exports must depend upon the comparative prices of the goods in that country and the countries to which it exports, it is evident that a country in which all manufactures are protected by a high tariff is not in a favorable position to export manufactured goods unless these are sold abroad at a lower price than they are sold at home. This condition, which is known as "dumping," occasionally occurs. When it does occur, however, it is immediately followed by a reaction against protection, on the ground that the foreigner is placed in a more favorable position as purchaser than the native customer.

In general, a country which protects its native manufacturers heavily, and which therefore holds these at higher prices than countries in which they are not so heavily protected, if it exports at all, must export raw materials or the products of exploitative industry. Thus Canada exports wheat and lumber and the United States wheat and cotton.

A prohibitory tariff, if it be successful in excluding goods, cannot contribute revenue to the State. Even a protective tariff is not necessarily productive of revenue. For revenue purposes, a relatively low tariff must be adopted or other means of taxation must be found.

330. *Classification of revenue.*—Revenue may be derived from the sale of natural resources (as in the case of timber, lands or minerals); it may be derived from leases (as in the case of lands); it may be derived from license fees or special taxes imposed upon certain businesses. It may be derived from a series of special taxes upon business, based upon income or upon capital, or otherwise; or it may be derived from a general tax upon property, or by a general tax upon income, in both cases with certain inferior limits, or by means of a graduated scale. Or, revenue may be derived by means of a tax upon land, urban or rural, or both. All of these methods have been adopted in the United States and in Canada.

In Upper Canada, before Confederation, licenses to carry on certain businesses formed a large part of the revenue. Later, licenses to cut timber and to engage in mining in certain places brought in a considerable

income. Import duties were levied at Quebec as well as at the upper Canadian ports, and were afterwards divided in certain proportions between the upper and lower Provinces. When the "casual and territorial revenues of the Crown" were transferred to the provincial governments, a small amount was realized from sales of land and from an insignificant land tax which was generally in arrears.

After Confederation the import duties were withdrawn from provincial control, and the revenue collected by the provinces was supplemented by a Dominion subsidy. The revenue, as thus constituted, did not suffice for the provincial expenditures, and further sources of revenue had to be found. A beginning was made in Ontario by the imposition of Succession or Death duties and later by the taxation of corporations.

In the United States the revenue from certain licenses and the import duties are reserved for the Federal Government, while states have separately engaged in experiments in other means of raising a revenue.

Notwithstanding ardent advocacy for many years, land taxes form nowhere the bulk of the revenue of modern nations. In new countries, where the population is scanty and the primary need of the country is immigration, a heavy land tax or an illiberal policy respecting land would act as a deterrent of immigration. In older settled countries, a heavy land tax is more feasible, but its imposition tends to throw many burdens upon the shoulders of the landowner because the prestige of landowning has been diminished and the price of land reduced. The ownership of land has been wholly commercialized. Through the influence of taxation and otherwise, the landowner refuses to bear the social burdens to which he formerly submitted as an incident of

his position. For example, the maintenance of local charities, formerly borne by the landowners, is now inevitably thrown upon the States. The gain, if any, from taxation, is thus at least partially offset by an increase in the public burdens. The social advantage which may be held to accrue from the elimination of the non-economic element in landholding is not necessarily accompanied by a net economic gain.

331. *Graduated income tax.*—In must be allowed that the popular conception of taxation has been changing with the changes in the doctrine of the functions of the State. Since the State has come to be regarded not merely as a regulative agent, but also as collector and distributor of wealth, the idea of discriminating between those forms of income which are presumed to be earned by labor of some kind and those forms of income which appear to be due to adventitious gains or unearned income, as it is called, has crept into the taxation policy of many countries.

A rough and ready method of effecting this discrimination is the graduated income tax. In this system, it is assumed that up to a certain point the receiver of an income may earn it, and that above that point his income is received, but not earned. Similarly it is proposed to appropriate for the purposes of the State by means of a special tax upon sales of land, at least a part of that portion of the increased value of land, where such increase occurs, which is presumed to be due to adventitious causes, for example, to the general increase in the numbers or in the wealth of the population.

It should be observed, that while a graduated income tax may react by driving persons who enjoy large incomes out of a country where these incomes are, in their opinion, exorbitantly taxed, a heavy tax on land might

react in diminishing the nobility of property in land by rendering such property insecure, and might, therefore, result in the diminution of the value of land in such a way as to diminish, instead of increasing, the revenue yielded by a land tax.

332. *Two theories of taxation.*—It is clear that in all such experiments in taxation, those who are responsible for the policy of the State must consider not merely what the State may presume it has a "right" to take from the people, but what economic reactions may take place owing to the exercise of that "right."

There are, broadly, two theories of taxation. By one theory it is explained that the taxation which is imposed by a well-ordered modern State, is simply a payment by the citizens for services rendered by the State to them —services of organization, defence, etc.—and that, therefore, the increased taxation is not a net increase, but merely an additional payment for more numerous or more valuable services. In fact, from this point of view, there is really no tax burden because the State returns at least as much value as the tax represents—that is, at least as much value in the consumers' sense, since the State is presumed to render the services at their cost taken as a whole.

The other theory explains that all taxation is a burden upon the people, that it means a deduction from their disposable incomes, and that, although the services which are rendered by the State must be rendered, their cost is so much greater than the cost when rendered by private persons that the more services the State undertakes the greater the disadvantage of the people. This is so because they have to pay more in taxes than they would have to pay for the services. According to this theory, it is not expedient for the State to take out of the

pockets of the people any more than is absolutely necessary. This canon would reduce the services of the State to a minimum, unless it could be shown that these services were being rendered by the State as economically (in the wide sense) as they could be rendered by private citizens.

The doctrine that taxation is no burden because the services rendered by the State compensate or more than compensate for it, appears to induce the belief, which is more or less prevalent, that the State is an external beneficent agent, which gratuitously bestows benefits. This view appears to lead to extravagance in public administration, to the embarkation of the State in futile enterprises and to the employment of unnecessary or incompetent functionaries. The other theory is associated with two famous doctrines—the doctrine of the absolute sovereignty of the State and the doctrine that surplus value (consisting of rent, interest and profit) results from the exercise of the functions of the State and is, therefore, wholly due to the State. The former doctrine in its bald form has long been explicitly rejected, but its implications remain in such forms as the theory of taxation in question. The latter doctrine is quite at variance with the idea that any share of the product is due to any of the contributories to production, for if surplus value is due to the exercise of the State function as a condition precedent to the realization of any surplus, private or public, this is equally true of the value of labor. It is true of all value and not merely of surplus value. To admit the "right" of the State to absorb all value is to admit the absolute sovereignty of the State.

Projects devised for the purpose of acquiring surplus value piecemeal have long had a certain following, and

some of them have been incorporated into the tax laws of various countries. In so far as such projects are carried out, the effect of them is a diminution of individual liberty.

333. *Who pays taxes?*—While certain taxes cannot fail to be borne by those upon whom they are directly levied by the state, the class of taxes customarily known as indirect may be transferred from the shoulders of the person upon whom they are, in the first instance, imposed, to the shoulders of other persons. For example, an excise duty upon tobacco or spirits is levied upon the manufacturers, and a customs duty upon the same commodities upon the importers; but usually, the duty in both cases is transferred to those who purchased the commodities for consumption. The case of other imported goods is less obvious.

The question is, can the incidence of taxation be determined with any approach to precision? The principle upon which it may be determined has already been described in connection with the effect upon prices of the imposition of a tariff. It is indeed through prices that the reactions of taxes occur. By means of transactions in which the goods which are the objects of taxation pass from one hand to another, the taxes are transferred from one shoulder to another.

If reference is made to the previous statement it will be gathered that in respect to taxes, in general, as in respect to import duties in particular, the state of the economic atmosphere will determine the classes of persons upon whom they will fall. If the atmosphere were highly competitive as regards production of the commodity upon which the tax is imposed, then the tax would tend to fall upon the consumer; if it were completely monopolistic as regards production, the tax

would tend to fall upon the producer. In all intermediate positions the tax would be divided.

334. *Marginal producer.*—There are, however, certain implications of the general theory which apply to certain taxes. If we assume that the competition of laborer with laborer for employment is so keen that all laborers are living at the lowest possible wage upon which it is possible for them to subsist, it is clear that to impose a tax upon wages would be absurd—under such conditions laborers could pay no taxes. If we assume that employers are all working upon marginal profits, that is, for subsistence wages of superintendence, it is clear, also, that a tax upon the gross income of such employers could not be realized. If an attempt to collect it were made, all such employers must be driven out of business.

Similar conditions might be assumed in respect to land and to capital. If the land yielded no rent, a tax upon it could not be realized unless the landowner had other sources of income. If the capital yielded no interest, a tax upon it would diminish the amount of it, and if the tax were continued, that amount would eventually be exhausted. If all the various economic groups were on the margin, that is to say, at the very minimum of subsistence, the collection of taxes would be impossible. If any one member of the group is at the minimum, the collection of a tax upon that member would be impossible.

335. *Economic strength of groups.*—Again, if the economic conditions of the time (a time, for instance, like that immediately succeeding an epidemic) enabled the laborers to demand the whole of the net product, enabled them, in short, to absorb all but the bare subsistence of the employer, capitalist and landowner, the

whole burden of taxation must fall upon the laborers. The same is true of the other groups.

If, for example, the landowner absorbed in rent all the net product—all the value of the product of productive operations in excess of the bare subsistence of laborers, employers and capitalists—the burden of taxation must fall upon his ample shoulders. If the capitalist absorbs through usurious rates of interest all the excess income of the community above bare subsistence, he in turn will have to contribute all that is collected for the maintenance of the State. This is, however, only another way of saying that everybody must pay taxes either directly or indirectly through reduction of his income in some form or another. The essential point to remember is that taxes are borne by persons and not by things. A tax upon a commodity is a tax upon the consumer of the commodity or upon the producer—a tax upon land is a tax upon the person who uses it.

It is true that a tax upon land might be paid by a person who possessed land but did not use it. In that case he would require to pay the amount of the tax out of resources other than those yielded by the land in question. Thus, the tax, although levied in respect of his land, would really be paid from income, derived otherwise than from land and would therefore be a tax upon that income. If he borrowed the money to pay the tax upon land, he could do so only up to the limit of the security which the land represented. This security would be determined by the use to which the land might be put and the amount of the tax which had been paid would form a deduction from the price receivable for it, if it were eventually sold, or from the rent obtained or realized by the use of it.

In any case a tax upon land must be paid by a person

or group of persons. It does not appear as a mysterious product from the land or from anything else. In other words, a tax is always a deduction from income and the taxes of a nation are therefore a deduction from the aggregate national income.

In the reactions which are involved in the determination of prices, some taxes are transferred from the seller to the buyer or they are divided between them according to the economic strength or weakness of the buyer and seller, respectively. The least economic strength is to be found in those buyers or sellers who are just above the margin. They are able to pay without passing out of existence, and they are too feeble in an economic sense to resist. The greatest economic strength is to be found in the indifferent buyer or seller. He will be able at once to buy or sell at his own price and this price will in general contain as little of the tax as may be.

CHAPTER IV

THE BUDGET AND PUBLIC DEBTS

336. *Public expenditures.*—The expenditure of the State is customarily classified in the same manner as that of any individual may be classified—according as the expenditure is on account of necessaries, conveniences or luxuries. Clearly, the things necessary to a State are those which concern its existence as a State. The form of the State will determine what these things are. If it is an independent individual State or a federation of states, it will be necessary to secure itself against foreign aggression or even foreign insult by means of a sufficient military force, and it will be necessary to secure itself against internal disorder by means of a sufficient police force. It will also be necessary to provide for the administration of the government by the appointment of judges to administer the law and by provision for the legislators appointed or elected to make the law.

According to the modern idea of the State these are the primary necessities. Among the conveniences may be reckoned the maintenance of a diplomatic service for the purpose of transacting business with foreign nations, and for the assistance of its own "nationals" who travel aboard. Among the luxuries may be considered the maintenance of more or less dignified and luxurious establishments for the conduct of the government and the

rewarding of persons who have rendered service to the State.

In modern times, the largest individual item in the catalogue of expenditures in nearly all the great nations is the expenditure for military purposes. But many nations have undertaken large expenditures on other grounds. Germany and Great Britain, for example, expend very large sums upon education and the latter has undertaken huge expenditure in the reorganization of the system of land tenure in Ireland. Germany, Russia, Italy and Canada have devoted immense sums to the construction of canals and of railways; and the United States has undertaken the completion of the Panama Canal.

The expenditures of all modern nations for civil purposes have increased with the demands upon the State for services in various directions. The State is regarded as the universal servant of the public, and when private enterprise is lacking the State is called upon to render the service. In democratic countries it is difficult for governments to resist the pressure to extend the functions of the State. The cost to the community as a whole is frequently disregarded, and it is often assumed and sometimes eloquently announced in Parliaments that great enterprises may be undertaken by the State without cost to any one. It is obvious that this is an illusion.

A check upon and audit of expenditures is imposed in Great Britain by the Treasury, and in Canada by the auditor-general and the Treasury Board. It is the business of the auditor-general to see that only legally authorized expenditures are made and that the various departments keep within the votes made on their account by Parliament.

337. *Annual budget.*—The budget or annual statement of revenue and expenditure by the finance minister is a very usual, but not a universal, feature of public financial methods. In France and Great Britain an approximately similar method is employed and the method adopted by Canada is the same as the method of Great Britain.

Immediately upon the close of the financial year it is the custom for the Chancellor of the Exchequer in England and for the Finance Minister in Canada to make a statement regarding the revenue and expenditure of the year which has just closed and to announce his estimates of the revenue and expenditure of the year which has just commenced. The statement and the estimates are, of course, prepared by the permanent officials of the Treasury acting in consultation with the officials of the revenue and of the spending departments.

The estimates of revenue for the coming year are in the first instance based upon the yield of the past year, the amount being added to or subtracted from, according as the view is taken that the ensuing year will be more or less productive than the previous year. When the Minister of Finance announces the changes which he proposes to make in the revenue, he may reduce or increase one or more taxes, and then the necessary modifications upon the gross revenue which these changes involve will be stated by him.

In case the Finance Minister announces the reduction or the increase of taxes, the reduction or the increase takes effect from the moment of his uttering in Parliament the words concerning them. This practice does not, of course, prevent speculation in respect to the likelihood of a particular increase or reduction being made,

but it places everyone upon an equal footing in respect to changes in duties.

As regards expenditure in the British and Canadian system all national expenditures must be initiated by the government. The constitutional theory is that the sovereign, otherwise the government, asks for supply of money and that Parliament either does or does not grant the supply. For a private member to ask Parliament to grant supply would therefore be anomalous.

The budget statement is customarily concluded by the moving of resolutions by the Finance Minister. Those resolutions declare that the proposals of the budget be given effect. Subsequently, a Customs Act is introduced which contains the necessary legal statement of the change in the law, and other revenue acts follow, should these be necessary.

The expenditure side of the budget is similarly dealt with in a series of Appropriation Acts. These acts go into detail in respect to the expenditure of the different departments. Constitutional practice has determined that an administration which has been defeated in the House of Commons, through the budget resolutions being negatived, does not necessarily resign.

After the acts which contain the budget proposals have passed the House of Commons in Great Britain or in Canada, they go, one to the House of Lords and the second to the Dominion Senate. Constitutional practice prevents either of these bodies from altering a money bill. They may throw it out, but they cannot amend it.

In the French system the accounts of the revenue and expenditure for a financial year are made to include the items properly referrable to the finances of that year only. Since sums of money are frequently incurred in

one year and paid in another, this system, although conducing to accuracy, also conduces to delay in closing the accounts. Not for two or three years after the close of a particular year can the accounts properly belonging to it be finally closed.

The English system, on the other hand, provides for all payments on government account being made by the Treasury through the Bank of England. Only those amounts actually paid or received within the year are taken into account in the finances of the year. Thus, at the close of business on the 31st of March in each year, the exact state of the public accounts is known and is generally published on the following morning.

338. *Public debts.*—National debts are a product of modern financial conditions. Their rise is coincident with the beginning of modern discovery and the struggle for colonial empires which ensued upon the discovery of America and of the Cape route to the East Indies. Prior to that epoch, governments borrowed money from individuals or groups of individuals of their own or of other nations. But the loans were customarily made on the personal credit of the sovereign since, in general, there was no distinction between the finances of the public administration and the finances of the sovereign's household.

As constitutional government developed in the countries of Western Europe, the finances of the nation were sharply separated from the finances of the sovereign, and loans upon the general credit of the State became possible. The general credit of the State depended upon the stability of the government, upon its taxing powers, and upon the powers of the people to sustain the burden of any taxes which might be imposed.

The power to lend the State the large sums of money

which it wanted, when it wanted any at all, could only arise when the accumulation of capital had rendered possible its concentration on particular occasions. This condition began to arise toward the end of the seventeenth century, with the increased activity of foreign trade, especially with the countries which during the two preceding centuries had come to be exploited by European traders.

The protection and encouragement of trade by means of an aggressive colonial policy could be effected only at considerable cost and the cost was in general so great that to seek to recover it by means of general taxation of the people would have been to incite the people to rebellion. The cost might probably have been recovered by large direct taxes upon the profits of external trade, but to impose these was to impede the growth of that trade by deterring capital from entering into it. The expedient of borrowing from the same class of persons whose activities rendered the expenditure necessary was therefore obvious.

339. *Early government loans.*—The train of events led in England to the first government loan from the Bank of England, the governors and directors of which were all merchants, and to similar loans from the Bank of France. These loans were made in the form of advances upon salable and transferrable documents of obligation on the part of the respective governments to pay a certain annual rate of interest forever, or alternatively to repay the principal sum with interest, the option lying with the government which incurred the obligation.

We have here the germ of public debts in any considerable sense, and as well the germs of the money market and of the stock market alike. For, when the government stocks were taken up by the banks, it was

done in general for the purpose either of selling them themselves or trading or borrowing upon the security which they represented.

340. *Government securities.*—In other words, the negotiation of a government loan by a banker or group of bankers did not diminish their credit, unless the credit of the government was doubtful or unless the bankers had made a doubtful bargain. They could count upon being always able to dispose of a portion or of the whole of the government debt should they require to do so. A market was thus created for government securities because every one knew that he could sell these securities whenever he wanted to do so, although the price which he could obtain for them might be expected to vary with the abundance of such securities in the market. Should he desire to hold the government stock he would receive a rate of interest which did not vary.

Government stock thus became an important factor in the money market, because of its ready salability. It might be held with advantage temporarily, because interest was always accruing upon it and the stock might under all normal conditions of the market be immediately converted into cash. The amount of it which the banks held might thus be regarded as quite equivalent, under ordinary conditions, to actual coin and nearly equivalent to coin under any conceivable conditions. The high liquidity of government stock thus rendered a money market in the large sense possible, and even in a smaller sense, greatly facilitated monetary dealings.

The frequent purchase and sale of government stock thus led to similarly frequent transactions in the stocks of companies issued in a manner similar to that adopted by the government, and thus led to the development of the stock market which, although it must be regarded

as separate from the money market, is, nevertheless, strongly influenced by it. Modern governments adopt various methods of issuing loans. The principal methods will now be described.

341. *Funded loans.*—Funded or permanent loans are usually issued in large amounts. They bear a specific rate of interest, and are divided into specific sums; but they are issued at variable figures according to the state of the market. Indeed, the same loan may be purchased at many different figures. Sometimes, tenders are called for by the government, the tenderer offering to take so much of the stock at a certain price. A loan issued by a government of high standing, or issued under exceptional conditions, may be tendered, in the aggregate, for several times the amount of the issue.

This was the case in the Japanese loans of 1905. The reception of the loan by the English market was due largely to the pro-Japanese enthusiasm which existed at that time, and partly to the hostility with which the anti-Semitic riots in Russia had inspired the Jewish financial circles of western Europe.

When such conditions are anticipated, tenderers in general apply for more stock than they expect will be allotted to them. The conditions of the money market may be such that the previous issues of stock by the government are salable only at a point far below par, and that further issues would also be salable only under a more or less heavy discount. This does not necessarily imply a deficiency in credit of the issuing government, although it may do so.

For instance, Russian Government stock fell slightly after each important defeat of the Russian armies in Manchuria and fell heavily during the revolutionary

movement in 1905. The reasons for the decline of the stock were, in the first case, the likelihood of the prolongation of the war or the cessation of it, involving the payment of a large indemnity to Japan with consequent increase in the amount of government debt; and in the second case to the diminished stability of the government on account of the serious character of interior disorder.

On the other hand, British consols or consolidated stocks have fallen, not because of the diminished credit of Great Britain, but because of the conditions of the money market, which have caused an advance in the rate of interest.

342. *Market declines of government securities.*—A discount upon government stock or a decline of it in the market may be caused, and in the case of the issues of the great powers usually is caused, by the scarcity of funds seeking investment and by the higher rate of interest which is in consequence demanded by the possessors of those funds. Since the government rate of interest is fixed, the only method of expressing the advance of the market rate of interest is by means of a discount upon the principal of the issue.

But government loans may be depreciated for another reason. The demand for such issues, although not invariable, is, nevertheless, limited because at any particular moment the amount of capital in the market for investments is limited.

343. *Effect of other securities.*—We have seen (p. 270) that the money market is divided into compartments, which, though not absolutely self-contained, are, nevertheless, relatively so, partly from causes which arise in the minds of owners of capital and partly from legislative causes. Under the law in many countries,

respecting the character of investments which may be made by trustees of public or private funds, the estates of deceased persons and the like, without personal liability on the part of such trustees, it is usually provided that investments should be made in government securities or in securities of a similarly high character. For this reason, a large part of the funds available for investments in such securities cannot be invested in any other. This circumstance increases the amount which may be invested in first-class securities and diminishes the amount available in the money market for general investment. The rate of interest in the general market will be increased if, for any reason, funds are diverted from general to special use. The advance of the general rate will prevent the flow into the investment market for government stock, of capital which might otherwise find its way there. The consequence is that the rate of interest in that investment market will advance, and if further government stocks are thrown upon it for realization, the price of these stocks must go down.

Thus the mere increase in the amount of government or of trustee investment stocks, no matter by whom or for what they are issued, brings about a rise in the rate of interest and a fall in the capital price of all such stocks, involving both past and present issues.

If a government is obliged to issue stock for purposes of war or for the purpose of interior development, and if these issues are of sufficient magnitude to absorb the available capital seeking investment in government securities, the discount upon all government securities must increase. Thus, the admission of colonial securities to the list of trustee stocks in England resulted in the absorption of a larger amount of trustee stock than the market could readily bear at that time. An advance

in the rate of interest was the result, this advance expressing itself in a heavier discount upon all government securities.

If in consequence of national peril any government increases its issues largely and there is difficulty in absorbing these issues owing to the state of the special and of the general market, the result must be heavier discounting of all government securities in proportion to the magnitude of the operations. These considerations apply to all forms of government issues whether they are of a permanent or a temporary character.

344. *Public debts of various countries.*—The public debt of Great Britain is very extensively held by bankers, not under compulsion (except by the Bank of England to a certain extent), for the reasons explained above, but because of the facility of manipulating large funds which the public debt affords. It is held largely by the various government departments where balances of funds are kept for special purposes. It is held largely by officers of the law courts by way of investment of funds held by them on behalf of litigants, wards in chancery and the like. It is also held largely by trustees and as the fortune of many wealthy families.

The Canadian public debt is held principally in Great Britain. It is on the list of stocks in which trustees may invest without personal liability and its fluctuations are subject to the same influences as those which affect other stocks of a like character. The fact that the larger part of the Canadian debt has been incurred for productive purposes—for the construction of canals, railways, etc.—does not affect its value in the market. That value depends upon the general credit and recognized stability of the government of the country, upon its taxing power, upon the assumed ability of the people

to meet their tax burdens, upon the state of the market for Canadian securities, as a whole, as well as upon the supply of and demand for capital for investment in general.

The public debt of the United States was at one time held almost entirely in Europe, principally in Great Britain. During the Civil War, the national credit was low, and there was also at the same time, from numerous causes of which the Civil War in America was one, a period of financial strain in Europe. American bonds thus fell in value because of the magnitude of the issues in comparison with the limited power of the market to absorb them. After the conclusion of the Civil War, the United States readily rehabilitated the public finances and gradually reduced the Federal debt.

The existing debt forms, through a forced loan by the banks, an integral part of the banking and currency system,[1] and it is maintained chiefly for this purpose. The rate of interest which is payable upon it—2 per cent—bears no relation to the market rate, nor does the price which the banks have to pay for the security depend upon transactions in the open market. The United States government is, indeed, rather in the position of a lender of money and credit than of a borrower of it.

345. *Temporary loans and loans for fixed periods.*—When a government desires to borrow for purposes in which the demand for capital is recurrent, such as when capital is employed for the construction of public buildings, or for other construction of a more or less durable but not of a permanent character, it is very usual to issue stock bearing a fixed rate of interest and provid-

[1] See "Money and Banking," Vol. VII of the MODERN BUSINESS text.

ing for redemption of the principal. The principal may be subject to repayment by instalments—annual or semi-annual—together with the interest, in which case the stock or bond is called a terminable annuity, to distinguish it from the permanent annuity of the funded debt. Or the principal may be subject to repayment in instalments or in one payment, either at given periods or at one period. It may be payable by lot or in some rotation or the whole of the principal debt may be paid off at the termination of the period agreed upon.

Terminable annuities are an important feature of British finance. They are largely adopted to supply a means of dealing with sinking funds,[1] and they thus lead to gradual extinction of debt. Large blocks of terminable annuities are frequently created and the funds involved are, therefore, removed from the consolidated fund of the permanent debt (colloquially known as "consols").

Temporary loans may be effected in a great variety of ways. They may be issued as Treasury Bills which are practically promissory notes drawn by the government and payable for large round sums in six months, for instance. They are usually drawn in anticipation of receipts from taxes, although they may be drawn for the purpose of providing funds urgently required at a moment when the market for permanent loans or even for terminable annuities is not favorable for the issue of such securities. Of a similar character are the English issues known as Exchequer Bonds.

346. *Conversion and redemption of public debts.*—The conversion of a public debt from a debt at one rate of interest to a debt at a lower rate has occasionally been accomplished under favorable conditions of the money market, and by means of financial skill. If a debt is contracted during times of monetary pressure, it may be issued at the rate of the market; in that case the issue will be made at par; or it may be issued at a customary or fixed rate of interest and at a discount, which brings the price below par.

[1] See "Investment and Speculation," Vol. IX of the MODERN BUSINESS text.

In the former case it may be expedient, if possible, so soon as the monetary stringency ceases, to endeavor to replace the high interest bearing loan by another loan at a lower rate. This process is known as conversion.

If, however, the issue has been made at a discount and at a rate which is lower than the market rate at the time of issue, the period at which conversion would be possible might be more extended because the financial authorities would require to wait until the market rate of interest fell to the point or below the point of the previously fixed rate.

Conversion can only be effected advantageously at a time when the capital value of a stock is high and when the rate of interest is low. When Mr. (afterward Lord) Goschen succeeded in converting the means of the British National Debt, from a 3 per cent stock to a 2 1-2 per cent stock, the 3 per cents were above par, and circumstances wholly favored the operation. As Chancellor of the Exchequer, he utilized his authority over the various public offices and institutions which were large fiduciary holders of consols, and also his influence with the banks to effect the conversion of the debt by means of a step and an inducement. The step was from 3 per cent to 2 3-4 per cent for a period of years with automatic reduction to 2 1-2 per cent after the lapse of this period, and the inducement was in the form of a commission to the bankers who aided in carrying out the scheme. The operation cost a temporary mone-

tary sacrifice to the exchequer, and a subsequent annual saving in the amount of the annuity necessary to discharge the interest of the debt.

It has been customary in Great Britain for many years to provide in the annual budget a fixed sum for the payment of interest upon the national debt. This sum has generally been fixed for an indeterminate series of years at a sum in excess of the requirements of the interest charge on the debt. The surplus is then by law devoted to redemption of the debt automatically. So, also, is any general surplus of the finances of the year from whatever source it may be derived.

A realized surplus must be devoted to the redemption of debt. A general national balance cannot, therefore, be carried forward. In addition to automatic measures of this kind, there are frequent reductions of debt through the falling in of terminable annuities, and sometimes an explicit amount is set aside for the discharge of a particular form of debt or for the purchase of the public funds.

347. *Industrial activity of the State.*—The State may undertake to render certain public services or may undertake certain industries. In either case it may establish a legal monopoly or it may permit competition.

Legal monopolies established by the State are common in Europe. The tobacco monopoly of Austria, the vodka monopoly of Russia, the match monopoly of France are examples. Where substitutes for the monopolized commodities cannot be procured or cannot readily be procured, the monopoly may be effectively maintained by means of the exercise of the powers of the State and the exaction of heavy penalties for infringement.

These monopolies are sometimes established for the

purpose of controlling public consumption of the monopolized commodity, as in the case of the Russian vodka monopoly, and sometimes for the purpose of securing a profit to the State as in the Austrian tobacco monopoly. The question whether or not the State is justified in making a profit out of its industrial enterprises has been forced into prominence chiefly through the analogous case of municipal enterprise.

Where the service rendered by the State or where the commodity manufactured by it is universally and equally used, there would be a strong argument for the service or the commodity to be supplied at cost; but there would be the same argument for its being supplied gratuitously.

The conditions of universality and equality sometimes exist in the case of bridges and of ferries. They may be said always to exist in the case of streets, parks and the like. The maintenance of the services represented by these is therefore usually, although not invariably, defrayed out of the general revenues. In the case of commodities which are not in universal use or which, being in universal use, are used in varying quantities by different people, as in the case of the post office, telegraph and telephone services, of which people avail themselves to a varying extent, the arguments for the exercise of the monopoly by the State, in the same manner as it would be exercised by a private monopolist, are very strong.

348. *Responsibilities of State industrial enterprises.*—The exercise of any monopoly, whether by the State or by private persons, is subject to certain limitations. If the monopolist desires to realize the maximum of profit out of his monopoly, the price which he will charge for it cannot be the highest price, but must be

the price which will result in a demand which will give the largest amount of net profit. Since the State may be prevented by public opinion from obtaining the largest amount of net profit, the price charged by it for the service or for the commodity may not in practice be determined with that in view. It may, indeed, be so low a price that the cost of the service is not met by it. This is the case in the British State Telegraph System. The price of transmission of telegrams was fixed when the government took over the business of the companies at the low sum of sixpence for twelve words, with an additional charge of a halfpenny for each additional word. It was supposed that the revenue from the telegraph service at so low a rate would suffice to pay the cost of the service. Experience has shown that the price is too low and that it does not meet the cost. The telegraph service has thus been maintained to some extent at the cost of the public. Other points in connection with the difficulty of maintaining the legal monopoly at cost are discussed elsewhere (p. 157).

On political or humanitarian grounds it may be expedient for the State to render services without explicitly charging for them to the people to whom they are rendered; but fairness to the general taxpayer demands that such gratuitous services should be confined to those which are in their nature universally available. Fairness also demands that the commodities produced by the State should be supplied at a price to those who want them, such as they would have to pay to any private concern.

The extent to which the State may advantageously engage in industrial enterprise must vary with varying conditions. Where the credit of the State is high enough to enable it to borrow capital at a lower rate of

interest than is possible for a private company which is engaged in a particular industry, it may be socially advantageous for the State to acquire the industry. It may be that the State could realize, at least, the difference between the amount of dividend which the private company paid and the amount of interest which the State would have to pay.

In order to do so, however, the State would have to manage the enterprise in precisely the same way as the private company. The State might or might not be able to do so. Public opinion might demand so greatly increased facilities that the anticipated margin would be wholly obliterated.

CHAPTER V

LOCAL AND MUNICIPAL FINANCE

349. *Local government in its economic aspects.*—For present purposes, local government may be divided into two sections—State or provincial government, and municipal or city government. The powers of administering revenue and expenditure possessed by the State or provincial government depend upon its relation to the central or national government. In the United States the several states possess the permanent power; that is, the central government possesses the powers with which it is endowed by the constitution, and the several states possess, each within its own territory, all other powers.

In Canada, the constitutional arrangement is exactly the reverse. The provinces are explicitly endowed with certain powers by the British North America Act and subsequent acts amending it, and the Dominion Parliament or central authority is endowed with all other powers in so for as such powers are consistent with the Act mentioned.

In the United States, the national revenue is thus practically confined to indirect taxation because powers of direct taxation have been retained by the several states. In Canada, the Dominion Parliament derives the national revenue from customs and excise and from the lands which remain at the disposition of the Dominion as distinguished from the provincial governments; but it would appear that the Dominion Parliament might,

if it elected to do so, impose direct taxation. The provinces cannot, however, impose any customs or excise duties, although they have imposed export duties upon logs and other commodities.

350. *Provincial taxation in Canada.*—In provincial taxation, the example of Ontario has, in general, been followed by the other provinces. Each province enjoys a subsidy from the Dominion exchequer. The amount of this subsidy depends upon the proportion which the population of the other provinces bears to the province of Quebec, which is taken as the unit of calculation. The adoption of this method was apparently necessary at the time of Confederation, but the method possesses the serious drawback that the tax-paying body is not the spending body. This circumstance leads to frequent assaults by the provinces upon the Dominion exchequer for increase of the total amount of the subsidy, and these assaults are difficult to resist. The separation of financial authority into two fractions tends to diminish the feeling of responsibility.

For fully twenty years after Confederation, the revenues of the provinces procured by means of the Dominion subsidy, the sale of timber lands and the granting of mining and other licenses sufficed to meet the expenditures of the respective provinces. The growth of demands upon the provincial governments for the construction of public works—roads, bridges and the like—and the enormous growth of the demand for expenditure for educational purposes, brought about the necessity of seeking for sources of income other than those mentioned above. The history of the finance of Ontario was characterized by the diminution of the revenue from the timber land as the large timber of the province came to be exhausted.

Under these circumstances the provincial government imposed, to begin with, succession duties, and followed these by taxes upon corporations—banks, trust companies, telephone companies, insurance companies and the like. The system which has been evolved is a highly complicated one, each different kind of company being assessed for taxes in a different manner. At present the taxes, as a rule, are not heavy, and for that reason they have not excited any serious antagonism; but the complexity of the system and the impossibility of comparing the burdens which are borne by different categories of tax-paying corporations, contain the germs of future difficulties.

351. *Corporation tax an income tax.*—The effect of the imposition of the taxes upon corporations irrespective of the method by which they are assessed, is a tax upon the income of joint stock companies; but under the method of assessment the revenue does not increase as that income increases, because the taxes are, as a rule, imposed upon the capital of the companies in some form or another—on railway per mile of line, on banks upon their capital and the like. The absence of automatic elasticity of the revenue is a serious drawback to provincial finance because more or less irritating changes will have to made in order to provide for an increasing expenditure.

When Confederation of the Canadian provinces came into effect in 1867, the Dominion administration took over all the existing public works of the provinces, taking over at the same time the public debts of the provinces. These public works consisted chiefly of canals, docks, lighthouses and the like. Until the period of Confederation, the provinces had not constructed any

railways, although they had granted subsidies to railway companies both in land and in money.

The Province of Ontario has more recently constructed a line which extends from the Canadian Pacific and Grand Trunk Railways at North Bay into northern Ontario. This line, known as the Temiskaming and Northern Ontario Railway, was intended originally to facilitate the transportation of lumber from that region and to facilitate, also, its colonization, as the timber areas became gradually available for settlement. The discoveries of silver and gold in the Cobalt, Porcupine, Gowganda and other districts gave unexpected opportunities to the railway. The line which is operated by a commission appointed by the Ontario government has thus been a financially successful undertaking. The capital for the construction of the line was raised in London on the general credit of the province.

352. *Utilizing prison labor.*—The Province of Ontario has embarked upon an experiment in prison administration which has important economic aspects. Prison farms have been established in which prisoners who have been sentenced for misdemeanors for periods of not more than two years are set to outdoor instead of indoor labor. They are occupied in building the necessary buildings, making roads and bridges, in cultivation, and in the manufacture of cement for use in other government institutions. The advantage from the point of view of prison hygiene is very manifest, but the experiment has not been in progress for a sufficient length of time to justify a judgment upon its cost. Experience elsewhere has shown that the system possesses great advantages for the prisoners, but that its cost is greater than that of simple confinement, owing to the inefficiency of forced prison labor. It is obvious that in so far as the prison

farm produces a surplus over and above the requirements of the prisoners on the farm, it competes in the market with the produce of the free farmers who contribute to its maintenance. Even if the surplus produce is used in other governmental institutions, it competes with the produce of the free farmers, who otherwise would contract for supplies for them. The question of prison labor is, however, insoluble on exclusively economic grounds.

353. *Municipal finance.*—On the continent of Europe a large part of the revenue of municipalities is derived from market tolls and from *octrois* or municipal import duties collected at the entrances to cities. The latter form of revenue is impracticable excepting where the cities are walled and where entrance to them can be regulated at a comparatively small number of barriers. In Great Britain, market tolls form a considerable part of the revenue of some of the towns, but the major part of the revenue is derived from taxes upon real property. These taxes are imposed not upon the estimated value of the property, as is customary in Canada and the United States, but upon the actual or estimated rental. This system has the result that property which is not in actual use is not assessed for property tax; it also has the result that frequent revaluation of real property is not necessary, the amount of rent being known, the tax follows automatically.

On the continent of Europe and in Great Britain, exemptions from taxation are rare. National and municipal property is exempt from municipal taxation, but otherwise all occupied premises are taxed.

The system of municipal taxation in vogue in Canada and the United States involves generally an annual valuation of real property in order to assess it for taxation purposes, the tax being levied upon its estimated value

whether it is occupied or not. This system has arisen because of the prevalence of the practice of holding land within urban areas for speculative purposes. It was thought that taxation would compel owners of such land to sell it or to occupy it. While after the collapse of real estate booms, land is often sold in quantity for taxes, the effect of the system does not appear to have been the discouragement of speculation, except by weak holders of small lots. Strong holders have been able to pay the taxes out of other sources of income or to borrow the amount necessary to pay them and hold the land for an anticipated advance in price.

354. *Tax exemption.*—In the Canadian cities and towns the area of exempted land and the value of exempted buildings is very great. All ecclesiastical property, excepting where such property is leased for other than ecclesiastical purposes, is exempt; so, also, is all property used for educational purposes, whether it is possessed by public or by private institutions. The competition of the urban centers with one another has also led to the exemption of certain factories from taxation for a period of years, as well as to the payment of bonuses to certain factories. The aggregate of such exemptions is great enough to make a material difference upon the tax rate.

355. *Municipal expenses dependent upon age of city.*—The ambition of the cities in the United States and Canada, the pressure of the owners of real estate and the relatively great extent of the cities, enclosing as they often do large spaces unoccupied or only partially occupied, have together resulted in exceedingly large expenditures for roads and streets. The climate of the northern towns causes the streets to deteriorate rapidly, no street-making material which will resist the effects

of the great range of temperature between summer and winter, and of sudden changes of temperature, having yet been discovered.

When comparing the expenditures of different cities, and especially the expenditures of cities in America with those of Europe, the difference in the age of cities must be taken into account. Much municipal expenditure is of a permanent character. There are cities in Europe whose civic buildings were erected in the middle ages and whose bridges, boulevards and parks have all been provided by previous generations. In America all these have been provided out of taxation almost within the current generation for a great many large cities and for all cities well within one century.

356. *Municipal debts.*—The debts of the municipalities in Canada and the United States are thus very large, and they are, moreover, increasing rapidly. The public continually demands that the municipality should undertake fresh civic duties, that it should undertake the administration of street railways, electric lighting, the provision of electrical power and the like. The total of municipal obligations is thus steadily mounting, and municipal finances are not always skilfully managed. In Europe, although compared with the population of the cities in America, the municipalities are less heavily burdened with duties, municipal offices are customarily filled by well-paid professional persons. In the United States and in Canada there is a disposition to underpay civic officials, with the result that the services are often less competently rendered than are similar services in private employment. The duties imposed upon municipal councillors are also so burdensome that it is often difficult to obtain competent persons to undertake them, and they are frequently left to be undertaken by inferior

types of local politicians. The result of these conditions have become apparent in the municipal scandals which have from time to time been exposed in American municipalities.

357. *Methods of assessment for municipal taxes.*—As indicated above, the system of assessment generally in vogue in Europe involves the taxation of rent or annual value, while the system generally in vogue in the United States and in Canada involves, in general, the taxation of estimated total value. In the former case, the question of discrimination between land and buildings does not necessarily arise; in the latter, the total value is usually arrived at by addition of the estimated value of the land to the estimated value of the buildings where such exist upon the land.

The relatively great expenditure in American municipalities, the causes of which have already been alluded to, has led to the desire to find new methods of taxation. In some of the cities where considerable areas of land are being held for speculative purposes at high prices, movements have developed having for their object the elimination of buildings and improvements from the assessment rolls, and the imposition of the larger portion or of all the municipal taxes upon the estimated value of land. Application of the principles of taxation to a case in which this policy has been carried into effect will show the nature of the reactions which, under given conditions, will take place.

In those cases in which the land which is subjected to taxation is not in use, the tax will be a tax upon capital or upon income derived from other sources than the land in question. If the owners of the land are financially strong enough and are sufficiently optimistic to pay the taxes and to hold the land they will in all likelihood do

so. If the holders are weak financially or are pessimistic as to the effect of special taxation upon the market, they will throw their land on the market. Should the latter class be numerous and should the land owned by them represent a considerable proportion of the unused land a fall in the price of such would be inevitable. As the price falls, so must the yield of taxes, and as the yield falls the tax rate must be increased in order that the revenue may be maintained. The idea seems to be prevalent that under the pressure of increased taxation, unused land will be forced into use, but land cannot be used unless there is demand for it, and demand cannot be forced, although it may sometimes be induced by a fall of price.

Where land is used, the taxation will fall upon the user and will be paid out of the gross rent. Under conditions of mobility of property in land, the net rent receivable will determine the price of it, estimated future increments of value being discounted. Excessive taxation must in this case also depress the price of the land.

The increase of taxation upon land and the elimination of improvements from the assessment rolls may appear to induce improvements, but improvements cannot be effected by this negative means. They can only arise from demand; and if they do so arise, the tax will fall upon them irrespective of nominal elimination. Meanwhile, however, a disturbance of the economic equilibrium of the area must take place. The magnitude of the effects described must depend upon the magnitude of the tax. It should also be observed that the ostensible elimination of buildings and other improvements from the assessment rolls may affect municipal credit, even if it only apparently diminishes the security for municipal loans.

358. *Municipal administration.*—The policy of centralization, which began with the gradual extinction of the independence of the medieval towns, was carried on the continent of Europe to its highest point in the eighteenth century, France leading in subordinating local to national interests. The English system of local government did not conform fully to the continental model. Until the date of the reform of the municipal corporations in 1835, there was a considerable amount of local autonomy. The powers retained by the English towns were not, however, always wisely exercised. There appears to have been a considerable amount of civic corruption and, in general, there was a parochial spirit.

The consolidation of the United Kingdom, which began after the union between Great Britain and Ireland in the beginning of the nineteenth century, demanded a policy of centralization which, however, was not carried so far as was the case in France. The civic corporations were shorn of much of their ancient powers, and were in effect completely subjected to the control of Parliament.

This process had two results. It overloaded Parliament with local affairs, and it diminished civic pride and prestige. The first result of the process of centralization led eventually to delegation of the powers of Parliament within certain limits to local authorities. This change endowed the cities and towns with, in some respects, more definite powers than they had had before, although they remained subject to the control of Parliament and of the national administration through their relation to the local Government Board. This board is a government department which has at present, for reasons which will shortly appear, no analogous department either in the United States or in Canada.

359. *Local Government Board in England.*—The local Government Board is a board only in name. The political head of the department is usually a cabinet minister; the effective functionaries are permanent civil servants. The function of the Board is to supervise local administration, to make inquiry into the nature of civic expenditures whether by Town Councils or by Boards of Guardians (Poor Law boards) as occasion arises. Municipal loans are sanctioned by the Board, often after a local inquiry as to the need of the loan conducted publicly by an official of the Board. These loans are made by the Commissioners of the National Debt, on terms which simply defray the cost of the loan, which is effected by means, not of the civic, but of the national credit. Periods for the amortization of the loan are arranged according to the purpose for which the loan is made.

Under this system, municipalities are not permitted to raise money except for essential services, until they are able to show that these services are fully rendered. Thus, municipalities were prevented from establishing telephone services on their own account because their system of sewerage or their water supply was inadequate.

360. *Local independent action.* — This system of checks and balances notwithstanding, the English and Scottish cities embarked in many enterprises in consequence of the facilities which they enjoyed of raising money at low rates. Some of them, owing to the possession of ancient funds (as is the case of Glasgow, where, although the city had a civic debt, it had also an endowment known as the Common Good), or owing to the possession of exceptional powers under special Acts of Parliament, were able to raise funds otherwise than

through the Local Government Boards.[1] By means of such special powers, some of the cities received money on deposit, paying a rate of interest slightly in excess of the rate allowed by the banks and some of them issued promissory notes at short dates. These notes, usually for amount of £100,000 ($486,666), were sold in the money market, occasionally being sold abroad.

361. *Municipal enterprise.*—These facilities, taken together, enabled the cities to build docks (as at Liverpool), to engage in the construction of canals (as at Manchester), to acquire and operate water works, gas works, electric lighting plants, tramways (street railways), water works for hydraulic power at high pressure, works for the supply of pneumatic power, telephone systems, and the like.

These enterprises were established from various motives. Sometimes the services had been rendered by companies which held franchises for short periods only with doubtful prospects of renewal. Under such circumstances, it was impossible for the companies to secure capital sufficient for needed extensions owing to the possibility of practical confiscation at the end of a short period. Sometimes the revenue from the services was insufficient to attract the necessary amount of capital, even where the franchises were indeterminate. In such cases the city was practically obliged to undertake the services on its own account. Sometimes the franchises were a source of considerable profit, and it appeared to the municipal authorities that this profit might be earned by a municipal department and might be employed in the reduction of general civic taxes. Occasionally, municipal services were undertaken out of enthusiasm for

[1] There are three such boards, one for each of the three kingdoms.

municipal ownership. This motive, however, arose at a late stage.

362. *Increased municipal indebtedness results.*—The consequence of the embarkation of many municipalities, practically simultaneously, in enterprises of various kinds, each involving the investment of large sums, was a great increase in municipal indebtedness. Municipal securities became a drug in the market, and the addition to the national borrowing on municipal account contributed, with the general advance in the rate of interest, to depress the price of national securities. The development of municipal enterprise was thus checked; and the margin of difference between the rate of interest which the municipality was obliged to pay for the capital borrowed by it, and the rate of interest or dividend yielded by investment in private enterprises diminished.

Meanwhile the difficulties inherent in all public enterprises developed. The people who availed themselves of the municipal services began to clamor for a reduction of the prices of the services rendered by the municipality under conditions of legal monopoly. In some cases the prices were temporarily or permanently reduced and the profits dwindled or disappeared; in some, the prices were maintained and the profits used to diminish the rates; in other cases, the profits were too slender to excite interest.

363. *Municipal enterprise in England not wholly a success.*—The general provisional conclusion from the available evidence upon municipal enterprise in Great Britain to be drawn is that, in that country, under the most favorable circumstances, municipal enterprise is a qualified financial success. It has not resulted in material diminution of the local rates, but it has undoubtedly

contributed to the revival of civic spirit and to greatly increased interest in civic affairs.

In its more purely economic aspects, the chief difficulties which have arisen are these: reluctance to remunerate technical ability to a sufficient extent to procure competent management; reluctance to provide a sufficient amount for depreciation of plant; and a tendency to transfer to departments which are exclusively spending departments (such as the department concerned with the maintenance of streets), charges which properly have been incurred by earning departments, in order to make the latter show a profit. The influence of the employees of the civic enterprises, who are also voters on the municipal list, has occasionally been aggressively exerted in order to procure for themselves benefits at the public expense.

364. *In the United States.*—In the United States, the cities have not been subjected to the centralizing influences which we have recognized as characterizing the relations between the cities and the national government both in France and in Great Britain. The cities of the United States have retained much of the independence which was possessed by the English cities at the period of the Declaration of Independence of the American Colonies.

The civic independence in the American colonies was, however, used by the American cities in a manner very similar to that in which the English cities used their quasi-independence. They became corrupt and parochial. The municipal reform of 1835 did not touch the United States, and the reform of the municipal corporations there was long delayed. Apart from the individualism which in general characterizes the people, there has been a certain distrust of local authorities. These

have rarely enjoyed the confidence of the people to an extent sufficient to entitle them to endowment with the powers necessary to the successful conduct of municipal enterprises. Occasionally these powers have been given and withdrawn. There have, however, from time to time, arisen demands for the extension of municipal enterprise.

365. *In Canada.*—In Canada, the case is somewhat similar except that the growth of the cities is more recent than is the growth of cities in the United States. The rapid expansion of the Canadian cities and the difficulty of finding adequate capital to provide plants for the performance of the civic functions, even upon a modest scale, have retarded the growth of municipal enterprise. But desire to emulate European cities in the management of public services by the municipalities, and the desire to relieve the burden of taxation by the consequent profits, have combined to create a large body of opinion in Canada toward the extension of municipal functions.

366. *Municipal officials.*—The effect of this extension upon the character of the municipal bodies has already been noticed. The greater the number of enterprises, the more arduous become the duties of municipal councillors and the more difficult it becomes to obtain members of the councils sufficiently public-spirited, disinterested and able to undertake these duties. This difficulty has emerged in every country. The growth of the cities and the increasing complexity of their administration has brought it more and more into relief.

In Germany the difficulty has been overcome by professionalizing municipal administration. Those who enter the service of civic governments are educated for the purpose, and those who exhibit special qualifications are

promoted from one municipal office to another, often in different towns, until they are appointed civic chiefs. A burgomaster who has successfully administered the affairs of a small town is promoted to be burgomaster of a larger one. This system undoubtedly contributes to efficiency in civic government, but it deprives municipal life of its democratic character and subordinates it to the general bureaucratic system of the State.

Great Britain has not adopted this plan. Until recent times there has been a sufficient number of public-spirited members of the leisure class to draw upon for municipal and other public services without compensation from the public purse. There has, moreover, long been in practice the method of appointing highly paid professional men to the important civic offices, and while the direction of the policy of the municipal government has remained in the hands of the unpaid elected representatives of the citizens, the actual administration has been entrusted to these officials. This practice, however, of late years has been considerably modified.

In the United States and in Canada, the numerical insignificance of the leisure class has rendered it necessary, in the first instance, to compensate the members of the municipal councils and, in the second, to pay the civic chief such a salary as will enable him to devote the whole of his time to the affairs of the city.

The mayor is not, however, as in the English cities, elected by the municipal council nor, as in continental cities, is he appointed by the government. In America he is elected by the citizens at large. The period during which he holds office varies in the United States. The usual period is four years. In Canada the period is one year, although the holder of the office is customarily elected for a second year. The method of election and

the shortness of the period appear to militate against the selection of first-rate men. Such men will not abandon professional careers under these conditions.

367. *Agitation for commission government.*—The results of municipal administration in the United States and Canada are widely regarded as having not been favorable. With the object of reforming it, some cities have adopted the plan of reducing the number of the municipal body to three or five, and have attached to its membership a salary sufficient to attract professionally qualified persons and to enable them to devote the whole of their time to municipal affairs. This method, known as commission government, seems to be a step toward professionalizing municipal administration. It is, however, in a transition stage, for the commission is usually elected by popular election for a short period, and this circumstance renders the commissioners dependent upon popular favor. So long as the municipal councillors had their own means of livelihood they were independent of the electors whom they represented, but the commissioners are public servants on short tenures, and are therefore peculiarly exposed to the temptation of endeavoring to conciliate particularly influential interests. Like the German system, commission government diminishes the democratic character of municipal life, but, unlike the German, it does not present the advantage of a system of training experts for municipal administration.

368. *Economics of municipal enterprise.*—The municipal debts of the European cities are generally held in the cities themselves, owing to the large numbers of the investing public who reside in them or have connections with them. The municipal debts of cities in the United States and in Canada are, in general, held elsewhere than in the issuing cities. A very large part

of the funds borrowed by them have been borrowed in the open market abroad. Every new enterprise undertaken by the cities involves an addition to the debt, and each new demand upon the money market is looked upon with diminished favor. The consequence is, that, especially when capital seeking such investment is scarce, the cities find it necessary to pay relatively high rates of interest and the margin of advantage between private and public ownership, from the point of view of the interest upon invested capital, tends to diminish. While the possession by a city of the public services which are indispensable to its existence may be advisable on economic grounds, the question of the acquisition of any of these at a particular moment must be subjected to criticism applicable to the local and general conditions.

The chief advantage of municipal enterprise, in an economic sense, lies in the saving to the public of the difference between the interest paid for the capital borrowed on the public credit and the interest plus profits earned by a company rendering the same service, civic and other taxes, allowances for depreciation and risks of all kinds being taken into account and equal skill in management being assumed. An advantage would also lie in the avoidance of divided control of the streets, and in the absence of the disputes which arise when the franchise is entered into and as it is nearing its termination.

On the other hand, the disadvantages are many. Perhaps the most important is the possibility of the conduct of the business being determined on political rather than on economic grounds, as regards employment and as regards charges to the public for the service. A municipal service, for example, is often overburdened with employees, and it is sometimes conducted

at ineconomical rates. In either case, the general taxpayer must suffer.

Municipal services are peculiarly liable to inertia. People will tolerate in a service rendered by themselves or in their name incompetence which they will not tolerate in a service rendered by a company. This inertia makes its appearance most conspicuously where, in consequence of the necessity of protecting a legal monopoly, a city finds itself obliged to acquire a substitute for it which may appear as a rival. For instance, if a city acquired a street railway and obtained a legal monopoly of such a method of transportation, it might be necessary for the city to acquire also motor omnibuses if they threatened to compete with the established system.

Cities which possessed a gas plant and a legal monopoly of the supply of gas have been obliged to acquire an electric lighting system in order to avoid external competition with their gas, and have also been obliged to check the development of electric lighting because it interfered with their gas business and diminished the value of their gas plant.

The circumstances that a loan for a municipal enterprise constitutes an addition to the civic debt and that each addition to debt renders each further addition less easy and in general more costly is a further disadvantage.

CHAPTER VI

SOCIAL LEGISLATION

369. *Factory acts.*—While each of the topics which are the subjects of the following pages might have been discussed appropriately under one or other of the foregoing heads, there is a certain advantage in grouping together those numerous legislative experiments which have been in progress for about thirty years, and which are known collectively as social legislation. During that period many plans, not in themselves new, have been given a new direction.

The social legislation of modern times may be held to have had its starting point in the English Factory Acts. No other country by the middle of the thirties of the nineteenth century had advanced so far in individual development by means of mobile hired labor as had England, and none of them had experienced the concentration of industry to the extent to which England had experienced it. Practically, at that time, the factory was an English affair, and it was, therefore, inevitable that English legislation concerning factories should be the first.

The earlier factory acts were chiefly concerned with sanitation because in the rush of the beginning of the factory industry, many buildings were used for factories which were not constructed for and were not suitable for factory occupation. Under the domestic system

workers had been crowded into small rooms, and the conditions, in general, were probably similar to those which may be seen now in the small workshops in the Far East.

In the cities of South China, weaving shops, where half a dozen hand loom weavers are employed, are often almost without any light and are destitute of any kind of comfort. They are mere holes in which naked weavers toil at their looms.

There were some industries in which workmen employed themselves and used their own simple tools under conditions which were healthful and agreeable. Some of the handloom weavers in country villages were examples of this. But throughout western Europe there were others, as there now are others, the factory industry notwithstanding, in which the conditions of labor were and are extremely undesirable from a social point of view, although it is almost impracticable to legislate in respect to them. These domestic industries are no doubt gradually disappearing, but recent conspicuous examples were umbrella covering and paper bag making. A considerable amount of ready-made clothing is partially made by workers in their own homes. Chains are also made in this way in England in the Sheffield district.

The conditions of the period of domestic industry were carried forward into the new era; but the greater concentration of workers together with the greater pressure due to the employment of machinery rendered continuance of these conditions highly undesirable. It was inevitable, however, that public opinion and legislation should grow slowly. The factory industry was struggling into existence. Undue severity in legislation might easily have retarded its progress by diminishing the margin of advantage between the new and the old

form. The old form might have continued without being subject to the legislative restrictions of the new, and thus its undesirable features might have been perpetuated.

The efficiency of the administration of the factory acts in all countries depends upon the existence of a properly trained and upright factory inspectorship. The appointment of politicians or their nominees without technical knowledge to such positions is indefensible, and, moreover, it retards effective legislation. Under the laws both of the United States and of Canada the factory inspectorship is under the control of the state and provincial governments, respectively. In both cases politics play a large part in the appointments.

370. *The working day.*—The question of the number of working hours, especially of women and children, exercised the minds of the advocates of the Factory Acts almost from the beginning, together with the question of a minimum age limit for children working in factories. The argument for differentiating women and children from men, in respect to statutory working hours, rested upon the belief that women and children were less able to assert themselves, and to complain of unhealthful or unsuitable conditions than were men, and that, therefore, they must be taken under the special protection of the State. In those industries, however, in which the labor of women and children was combined with the labor of men, as in textile factories, in dye works and others, the fixation of a statutory minimum for them involved a statutory minimum for the factories in which they were employed.

In Great Britain, the passing of the nine-hour law for such factories led to similar legislation in other countries. The most important check upon the working of

children in factories was the institution of a system of compulsory education. Provision was made for half-timers, or children who attended school for half the day and worked in the factory for the other half. This system had the drawbacks or the advantages, according to the point of view which may be taken, of practically binding the children to factory labor and of forming a special class of half-educated persons. This latter result has been considerably modified in the larger cities by the establishment of a system of "continuation schools."

But the question of a statutory working day has long ceased to apply exclusively to women and children. The claim has been urgently advanced in every country that the workingman is entitled to a greater amount of leisure and that, trade union regulations notwithstanding, the hours of labor in many industries have been excessive. The case of railway servants appeared to be especially strong because it was shown that engine drivers, brakemen and signalmen, whose alertness was of the greatest importance for the public safety, were frequently on duty for a longer period than it was considered possible for a human being to remain in a state of unremitting attention. Legislation, for the benefit of such cases, has been passed by many countries and railway companies have been prosecuted for imposing too prolonged duties upon certain classes of their workmen.

371. *Factors to be considered.*—It is obvious that all occupations cannot be dealt with on the same footing. Some labor is too exhausting to be continued for many hours. The driver of an express train over a difficult section of a line may find himself exhausted at the end of two or three hours, while the driver of a slow train may be able to perform his duties perfectly well for two or

three times that period. From the point of view of physical fitness, therefore, a hard and fast rule applicable to all occupations cannot be laid down. From the same point of view, while there is an invincible argument against working a man for, say, forty-eight hours continuously, whether he is willing to work or not, the argument acquires less force with the diminution of each hour. When the number of working hours is brought down to ten, there is less reason to reduce it to nine and still less to reduce it to eight or six by legislative enactment.

Apart from the question of physical fitness, there is the question of the working force requisite for a certain amount of production. If work is continuous and three shifts of workmen are employed, each shift working eight hours a day, a certain product per man employed will result. If four shifts are employed, each shift working six hours a day, either the labor of the six-hour day must be as productive as that of the eight-hour day or the product will be less. Even if the workmen were obtaining the whole product of their labor, it is clear that they would require to produce as much in six hours as they formerly did in eight, or the amount receivable by each of them could be less. It is true that the labor of the earlier hours of work is in general more productive and the labor of the later hours progressively less until excessive fatigue puts a stop to labor altogether, but it is not necessarily an advantage to concentrate exertion into a small number of hours in order to enjoy complete idleness for the rest of the day.

An arbitrary and universal eight-hour day would be a great advantage to those workmen who could employ their leisure time in promoting their own welfare in a high sense; but there would be little individual and no

social advantage in work at high pressure for a few hours with empty leisure at the end of it. While mere quantity of physical product is not in itself a desirable social end, it is desirable from a social point of view that sufficient production should take place to enable the various communities, of which the working world is composed, to enjoy as high a standard of material comfort as possible. That this sufficient production should be effected without the exploitation of any, either by a part of the community or by the whole of it, is certainly a desirable social end and this end would appear to be accomplished more certainly by improved organization of production in such a way as to diminish exhausting toil, rather than by the negative process of imposing, arbitrarily and universally, a statutory number of hours of enforced leisure.

The problem of the working day must, indeed, be attacked in detail. In those occupations in which labor combinations are ineffectual in securing reasonable conditions as regards the number of working hours—because the pressure of competition for employment is so great or because of inherent difficulties of combinations in the particular occupations—it may become the duty of the State to prevent the exhaustion of its working force by limiting the number of working hours. The influence of the diminution of working hours upon the methods of wage payment would have to be taken into account. If it led to an extension of the piece-work system and if, in this way, it rendered the combination of labor more difficult, the reactions might be unfavorable to the interests of labor taken as a whole.

372. *Accident compensation.*—Under so-called Employers' Liability Acts, which were in force in many countries, employers were liable to the extent of their

means for damages to workmen in consequence of injury received by them in the course of their employment. The employer could, however, in certain cases, plead in defence at common law that the injury was committed, not by his negligence, but by the negligence of a fellow employee of the injured man and that, therefore, the employer was not liable. The employer could also plead contributory negligence on the part of the injured workman.

The defences of common employment and contributory negligence appeared to neutralize the benefits of the statute law of employers' liability, and there arose gradually in Great Britain, on the continent of Europe, and in America, a demand that the basis of the law should be altogether altered, and that injured workmen should be compensated for industrial accidents provided these occurred out of or in course of their employment, whether a fellow servant had been guilty of negligence or not, while the onus of proof of contributory negligence on the part of the workman himself should be thrown upon the employer. It was widely held that the industrial system should, by some means, be compelled to pay compensation for injuries received in its service, instead of leaving injured workmen to their own resources or to those of public or private charity.

This view led eventually, after much discussion, to the adoption in Germany, Austria and France of somewhat varying types of compulsory insurance against industrial accidents and, in England, to successive Workmen's Compensation Acts. In the United States, in the present state of the Constitution, it would appear that the regulation of industry within each state is the affair of that state and that the Federal government would be encroaching upon the rights of the several states if it

were to administer a general law. The chief industrial states have thus separately attacked the question. Several acts have been passed, varying in important details. Some of the legislation and proposed legislation has followed the English model; but most of the acts which have already been passed have followed the model of Germany. The German system may, for this reason, first be described briefly.

373. *German accident insurance.*—Every industrial enterprise in Germany, upon an extended list of industries, must belong to one of a series of groups which are arranged chiefly with regard to the relative hazards, the most hazardous industries being at one end of the scale and the less hazardous being at the other. In each industrial center, the local industries are classified in these groups and for each group there is formed an association of employers in the industries of the group. There is also formed a similar association of workingmen in each group of industries. The administration of the whole system is in the hands of the Imperial Insurance Department. The direct cost of the system is divided between workingmen, employers and the State. All workingmen must contribute to the so-called Sick Funds. These are maintained by the contributions of insured persons and of employers. The proportional burdens are, upon insured workmen, two-thirds and upon employers one-third of the amounts necessary to maintain, at a certain fixed rate, injured workmen for four weeks after the expiration of three days from the date of the accident.

The same proportions apply to the funds necessary to provide sick allowances to such workmen, with the addition of sixteen and two-thirds of the previous earnings of the workmen, which amount is contributed by the employers or by the accident associations composed of

them. If disability lasts for a longer period than thirteen weeks, the funds are provided entirely by the accident associations to which the employers are the sole contributors. The benefits paid to injured workmen for temporary disability amount for the first five weeks to one-half of the average daily wage customary in the craft of the injured workman. [The maximum wage upon which the compensation is to be determined is six marks ($1.43) per day.] From the fifth to the thirteenth week of disability the compensation is two-thirds of such average wage. Should the disability endure for a longer period than thirteen weeks, it passes into the category of permanent disability.

Free medical attendance, drugs, eye-glasses and surgical apparatus are provided in addition to the compensation. In cases of permanent disability a pension of a maximum amount of two-thirds of the annual earnings up to 1,800 marks ($428.40) is paid for total disability, excess of wages above the amount named being reckoned to the extent of 30 per cent. The amount of the pension varies in respect to the disability.

The payments are made monthly, in case of death, to the widow, who until her death or remarriage receives an annuity, and annuities are paid to children until they attain the age of sixteen years. The total of such annuities must not exceed 60 per cent of the previous annual earnings of the deceased workman calculated as above. Burial expenses are also paid up to one-fifteenth of the annual earnings, with a minimum allowance of 50 marks ($11.90). In certain cases, a lump sum is paid on the death of a workman instead of annuities to his dependents. The Federal Council may extend the operation of the Accident Insurance Law to certain occupational diseases. Disputed claims are settled by insur-

ance arbitration courts. Compulsory accident associations, composed of accident associations to which employers must belong, are empowered to formulate regulations for the prevention of accidents and to impose fines upon the employers and upon workmen who infringe these regulations.

374. *German system not financed by State.*—The German system is thus not a system of State accident insurance in the strict sense; it is controlled by the State, but the funds remain in the hands of the accident and sick associations. The sick associations were in existence before the accident insurance law was passed. It is very difficult to compare the costs and the results of the German system with those of other systems, for that and other reasons. The accident insurance funds do not stand by themselves. For the first four weeks of disability the compensation is paid exclusively from the sick funds, and for the next nine weeks it is partly paid by these funds. In the early years of the operation of the German system there was much malingering or fraudulent application for sick and accident relief, in spite of the expectations that the intimate relations with one another of the members of the sick funds would result in the prevention of fraud. It is understood that this feature has been to some extent diminished by careful medical superintendence. In the German system, accident insurance is also aided by the police and by the postal departments, and the costs of these services do not appear separately in the accounts.

The success of the German accident insurance law may perhaps be referred partly to the fact that the law was not applied to an already highly developed industrial system, but that it grew up with it, and partly to the fact that the highly regulative character of the German

administration to which the people are habituated has enabled the government to force employers and employed alike into associations controlled by the State. The great commercial prosperity which Germany has enjoyed during the period in which the insurance legislation has been in force has facilitated the bearing of the burden of accident and old-age pension funds alike. The employers have, however, been complaining of the great increase in the cost of social legislation and the pressure of it upon certain industries.

375. *Workmen's Compensation Act in England.*—The Workmen's Compensation Act is of a different type. It applies to accidents in all employments and to twenty-four occupational diseases (this number may be added to by the Home Secretary). The Act provides for compensation for injuries by accident arising out of and in course of employment which prevent a workman from earning full wages for one week or more, or which cause his death. In case of wilful misconduct, resulting in partial disablement, no compensation is paid, but if the workman is permanently disabled or killed, compensation is payable. All manual laborers and any regularly employed person whose wages are less than £250 ($1,216.63) per annum comes under the operation of the Act. The benefits are as follows: for partial disability, there is a weekly payment during life not exceeding that loss in earning power, beginning one week after disablement; for permanent total disability, a weekly payment after the first week of not more than one-half of the average weekly earnings, but not more than £1 ($4.87) payable during life; for temporary disability; and for death, a sum equal to three years' earnings. If the amount is less than between £150 to £300 ($729.98 to $1,459.95) the compensation is given to

wholly dependent persons, the amounts payable to partial dependents are settled by arbitration and all sums are to be invested by order of the county court. Burial expenses to the amount of £10 ($48.70), including medical attendance, are provided for. Free medical attendance is given only in cases of death. The entire cost of the compensation rests on the employer, who may insure against his liability in any certified insurance scheme. There are special provisions for the payment of compensation in case of the bankruptcy of the employer. Disputes arising under the Act are settled by arbitration or by the county court, and not by a specially established tribunal.

The English system is thus a system in which the cost of compensation falls directly upon the employer, who may, if he chooses, insure against the liability. Insurance is, however, not compulsory, nor are the employers grouped together as under the German system. The prevention of accidents, being in the hands of the Factory Inspectorship, is not mingled with the compensation scheme, as it is in Germany.

376. *Federal compensation for accident in the United States.*—A Federal act was passed by the Congress of the United States in 1908 providing for compensation for accidental injuries sustained by employees of the government. This special act is by no means so liberal in its benefits as either the German or the English general acts. The "waiting time," or the time which must elapse after the accident until benefit begins to accrue, is fifteen days, against the German three days and the English seven. The amount of compensation for death is only one year's wages, and that is subject to deduction of the amount paid in the current year up till the time of death. No burial expenses are allowed. In case

of disability, one year's wages only are paid, whether the disability is total or partial, temporary or permanent. In case of dispute, there is no appeal. The measures adopted by the various states or projected by them cannot be detailed here. Some of them, notably the State of Washington, have adopted the German system with modifications.

377. *Question of responsibility.*—The questions of economic interest arising out of this form of social legislation are mainly these; *first,* the relative advantage of individual and of collective responsibility; *second,* assumption of the cost; *third,* the economic effect.

Individual responsibility, which is the feature of the English system, appears, on the whole, the system most likely to result in the prevention of accidents by employers and by workmen alike. The employer has to pay compensation and the workman has to suffer the loss of a week's pay for any accident. In the English system, the whole scheme is aided by a highly efficient factory inspection by qualified inspectors. The employer who is individually responsible may insure his risk under conditions which enable him to do so at a minimum cost for such risks. He can, if he chooses, pay his premiums to a mutual insurance company composed of all employers in a district or in a country, or he can do so to a company whose risks are international. The larger the total area of risk, the smaller is likely to be the cost of the individual risk.

Collective responsibility under the German system involves compulsory mutual insurance in relatively small groups, and mutual inspection within these groups. If the groups are very small, the burden of the accidents may be very great and the careful employer is burdened to the same, or even to a greater, relative extent than

the careless employer. If, for example, an employer succeeded in altogether preventing accidents in his works by the installation of certain machinery and by close supervision, under the system of individual responsibility his risk would be nil; but under the collective system he would still be responsible for compensation for accidents in the works of his less careful fellow employers. The careful employer might thus have a high insurance rate to pay in addition to the cost of the measures by means of which he had eliminated accidents in his own establishment.

The disadvantage of the system of individual responsibility is that in cases of pensions given by way of compensation (a point to be considered later), the individual employer cannot be regarded as being able always to offer undoubted security for the continuance of the payment of the pensions, since he cannot be compelled to continue to carry on his business against his will. This difficulty might, of course, be avoided, as it is avoided in the English system, by the payment of a lump sum by the employer, which sum is invested by the order of a court. In the case of large and stable enterprises, such a difficulty need not arise. The cardinal objection to the mutual system, as applied to small groups, is that the area of each is too small to permit of economical insurance.

The system of collective responsibility in groups involves either the collection of premiums in excess of the amount of the annual sum expended in compensation, for the purpose of providing a reserve against the future payments arising out of accidents of the year, or the collection of assessments coinciding precisely with the amount required within the year, to discharge the current obligations of the group.

378. *Individual and collective responsibility compared.*—The advantage of the first method is that if the premiums are based upon proper actuarial calculations, the funds collected each year will bear the whole of the burden of the accidents of the year. A portion of the funds remains in hand because full payment by way of compensation or in pensions has not yet matured.

The advantage of the second, or assessment method, is that nothing is taken from the contributors to the income for compensation, except what is necessary for the annual payment, while the employers can retain, for the use of their business, the funds which represent the difference between their actual payments and the amount which would have been necessary to extinguish all future payments on account of the accidents of the year.

In the first case there are funds to manage and invest, and in the second case no funds are accumulated. The disadvantages in the first case are that the contributors are obliged to supply funds long before they are actually required and that accumulation involves expense of management and risk of loss. The disadvantages of the second method are that the assessments gradually increase as the cumulative effect of the granting of additional pensions annually makes itself felt, and that changes in the personnel of the group might relieve those who gave up business and left the group of part of their obligations, while newcomers would be called upon to pay compensations for accidents which occurred before they began business.

An assessment system in a mobile group might thus result in insolvency of the fund. Accumulated obligations in respect to long past accidents might eventually prove ruinous, so that either the deficits would have to be met by the State or the scheme would have to be aban-

doned. A scheme based upon assessments levied on industrial groups on the ground that the industry in which an accident occurs ought to bear the burden of compensation, thus seems likely to drift, in the first instance, into a scheme in which all industries bear the burden out of a common fund and, later, into one in which the whole of the burden is thrown directly upon the general taxpayer. Unless such a system were supplemented by a very rigid factory inspection, the industrial accidents might become much more frequent than would be the case under almost any other system.

379. *Assumption of costs.*—In the German system the main cost of compensation is divided between the employer and the workman, the State bearing only a part of the cost of administration. The contributions are levied directly upon the workmen and the employer respectively. In order that the employers may have more influence in the distribution of the benefits of the sick associations, they have even asked that they be permitted to contribute more than the law originally provided for. In the English system, the whole of the cost is borne directly by the employer and this method also is recommended in several of the projects which have been brought forward in the United States and Canada. In the report upon Workmen's Compensation by Sir Wm. R. Meredith to the Ontario Government, the advisability of this is strongly urged. On the other hand, the Canadian Manufacturers' Association has suggested that the workmen contribute.

The important question is not, however, upon whom the cost is imposed directly, but by whom the cost must be borne eventually. It has been argued that if the cost is thrown upon the employer, and if he is unwilling or unable to bear it, he will be able to add it to the price of his product. If he could do this the customer would have to bear the burden. If we regard the cost of compensation for accidents as a tax and apply to it the principles of forward and backward shifting which we have already examined in an atmosphere of perfect competition,[1] the consumer would have to bear the cost, either in the increase of the price or in the absence of a reduction when a reduction would have taken place.

If the employers are in the position of monopolists and are obtaining a rack price, then it is clear that they must pay the compensation out of their profits from this rack price. But if the competition is such that the price cannot be increased and that the employers are obtaining only a marginal profit, while the workmen are receiving wages in excess of their minimum subsistence, the cost of the insurance will fall upon them in the form of reduced wages or in the form of the absence of an increase, which would otherwise have taken place.

It should be observed, however, that very small costs remain in general where they are first imposed, and that if the cost of insurance is inconsiderable its direct imposition upon the employer would not necessarily result in its being shifted either to the consumer or to the workman.

If an attempt is to be made to impose the burden of compensation for accidents upon the industry, from the administrative point of view, it is undoubtedly less costly to impose it upon the employer than to impose it directly upon the workman, owing to the greater cost of collection in the latter case. Since the workman is usually in a weaker economic position than his employer, it is likely that, in the normal case, all burdens such as the cost of compensation, while levied directly upon his employer,

[1] See Page (187).

will, at least during certain periods, eventually fall upon him. For this reason it has been advocated that all such burdens should be borne by the state; that is, by the general tax fund, but the ulterior result of such an arrangement might involve not only a greater amount of malingering than presently exists, but a larger number of accidents.

380. *Economic effects of workmen's compensation systems.*—Experience has shown that when a new system is established in response to philanthropic agitation, there is a disposition on the part, not only of those for whose benefit it was intended, but of others, to take advantage of it and that there is thus a possibility of even a soundly based scheme being compromised at the outset. This is peculiarly true of all schemes which are organized or aided by the state.

The experience of the English Act immediately after its coming into force showed that the duration of sickness of workmen regulated itself according to the act. Since the act required a workman to be sick for seven days before he could receive sick allowance, the period of sickness began to lengthen. In one mutual society operating under the Act, during the six months prior to its operation, 1.9 per cent of workmen under its provisions suffered from illnesses lasting between seven and fourteen days, while 3.5 per cent suffered illness lasting longer than fourteen days. In the first six months of the operation of the act, 7.4 per cent of the workmen had illnesses lasting the shorter period and 6.9 per cent had illnesses lasting for longer periods. In other words, the claims for compensation fully doubled in number. From the point of view of production, a lax administration of a workmen's compensation act must be disadvantageous.

381. *Old-age pensions.*—Closely connected with the topic of sickness insurance is that of old-age pensions. The payment of annuities to persons who have contributed to funds, established for the purpose of giving annuities to the survivors or attaining a certain age, is not new. This method was practiced by the medieval guilds and by their successors, the Liveried Companies, Incorporated Trades and the Friendly Societies probably during the whole period of the existence of these bodies. Such a practice, widespread as it was, and supplemented as it was in the early ages by benefactions of the pious, in later ages by the Poor Law and throughout by domestic pensions, appeared to render more ambitious state schemes unnecessary. Schemes involving the granting by the State of pensions on the ground of age were, however, frequently advanced from the end of the seventeenth century onwards. So far as the writer is aware, the earliest of these schemes were all advanced in England; it was not until 1889 that the German Old-Age and Invalidity Insurance Law was passed.

382. *History of pension acts.*—The earliest English schemes were Daniel Defoe's public and compulsory scheme of 1692 or 1693 (published in his Essay upon Projects in 1697); and Dowdeswell's Bill of 1773. This bill passed the House of Commons, but was thrown out by the Lords. It received the support of Edmund Burke.

Both of these schemes involved contributions by those who might afterwards, if they survived, become beneficiaries. Defoe's scheme was compulsory, Dowdeswell's involved payment of deficiencies out of the rates.

Rolle's Bill (1787) provided for payments into a fund by rich and poor alike; the poor alone receiving from the fund benefits for accident, misfortune or old age.

Thomas Paine, in his "Agrarian justice" (1795-96), develops a plan for a National Fund, raised by means of heavy succession duties, out of which there was to be paid to every person attaining the age of twenty-one years, £15 by way of compensation for the loss of natural inheritance through the introduction of the system of landed property, and on attaining the age of fifty £10 per annum during life. Lansdowne's Bill (1837) proposed to add from local funds 25 per cent to the amounts contributed by the members of Friendly Societies. Corrance's project (1869) also involved assistance to Friendly Societies by the State in order to enable them to provide pensions to other members on attaining the age of sixty or sixty-five.

Canon Blackley proposed in 1879 a comprehensive scheme of state pensions for the aged. This scheme was followed immediately by that of Mr. Rankin, and in 1889 by that of Mr. Ede. In the same year the German Old-Age and Invalidity Law was passed.

The provisions of this law were very similar to those of Canon Blackley's scheme of 1879. Several projects for old-age pension funds were advanced after the adoption of the plan by Germany and in England several Commission Acts on the question (1893, 1895, 1898, 1899, 1900, 1903).

Eventually an Old-Age Pension Act granting pensions without previous contributions was passed in 1908. An Old-Age Pension Act was passed by New Zealand in 1898, by New South Wales in 1900, and by Victoria and Queensland later. The Commonwealth of Australia adopted a uniform pension law in 1908. In the United States there are numerous partial systems for pensioning certain classes of persons under Federal and under state laws, but there is no general law.

383. *Canadian situation.*—In Canada there is no general pension law. In January, 1912, a Select Special Committee was appointed by the government for the purpose of hearing evidence and making a report. The number of persons to whom an old-age pension system would apply would depend, (a) upon the age at which the pension is given, and (b) upon the classes of persons to whom it is to be given.

The results of an old-age pension scheme, which placed the pension age at sixty-five years and which gave a pension of $1 per week to those persons who, having reached that age, were unable to maintain themselves wholly from their own means, may be put provisionally as follows. The total number of persons of sixty-five years and upwards in the population of Canada is about 5 per cent of that population; if one-fifth of these were unable to maintain themselves and were, on that ground, granted the pension named, the cost at the present time would be $3,750,000 per year. In a country like Canada, where there is no poor law, it may be that an old-age person fund may become necessary. Whether its cost should be sustained wholly from the general revene of the State or whether a tax for the purpose should be imposed, is a question which would have to be determined by the conditions of the time and the intenton of the fund.

384. *Labor exchanges.*—Labor exchanges or employment offices, conducted by or controlled by the government, have been established during recent years by several countries on the continent of Europe and by Great Britain. Persons seeking relief on account of unemployment are required to register in these exchanges. To them, also, employers are expected to refer when they want workers.

Government exchanges were established as a part of the general scheme of dealing with the question of unemployment and also to provide an alternative to the private bureaus of the same kind which had led to serious evils, to excessive commissions and to cases of fraud. The labor exchange has, on the whole, been shown to be a great benefit. It has aided in the separation of the chronically unemployed from the unemployed workmen who really desire employment, and it has prepared the way for dealing with the former class by other methods.

385. *A new experiment.*—Steps have been taken in Great Britain, in connection with the labor exchanges supplemented by boards appointed partly by the government and partly by educational and similar institutions, towards finding suitable employment for boys and girls immediately when they leave school. This interesting experiment in paternal legislation has not been in force for a sufficient length of time to enable any but very provisional conclusions to be arrived at. However, the period during which it has been in operation has been a period of great activity in industry, during which the need for assistance in finding employment has not been so great as it would be in an industrial crisis.

The experiment, however, suggests certain difficulties. If a boy, for example, applies to the board, or if his parents apply for him, even if the board is at once able to provide employment, to what kind of employment is the boy to be put? His record at school affords only certain indications, and it may be used so far as it avails, but even with this record before it, how is a board to decide a matter which must have been difficult for the parents to decide (otherwise they would not have made the application)?

So far as the experiment has gone, there seems to be a tendency on the part of the board to solve the question by recommending the boy to adopt the trade of his father and to find him a position in that trade as an apprentice if apprenticeship is usual. The board can, indeed, indirectly exercise some compulsion, for, if a boy who has been dealt with by the board and has been sent to an employment selected by it, is found begging in the streets, having left this employment of his own accord, he may be sent back to his employment as an alternative to being sent to jail, or to an institution for vagrant boys.

It is obvious that a measure of this kind very nearly involves compulsory labor, and if the practice of sending a boy into his father's trade is followed, it must lead, so far as it is effective, to the perpetuation of hereditary tradesmanship. It is quite true that industrial castes are already very common, and that the majority of youths follow the trade of their fathers; but, until now, this has been a voluntary and not a compulsory practice.

386. *"Right to work."*—In the institution of labor bureaus and in the adoption of other methods of dealing with unemployment, governments have endeavored to make it clear that the modern state does not admit the right to work. The admission of the "right to work" would involve the duty on the part of the State to find employment for all applicants. That governments have refrained from admitting the right and the duty is not of serious importance, although the intention of legislation with respect to employment is that everyone who can work will obtain an opportunity of doing so irrespective of the state of industry. If it does not achieve this result under circumstances of exceptional pressure, it is clear that supplementary legislation must follow.

In the United States and Canada the central governments have not been endowed by their respective legisla-

tures with powers to deal with unemployment. The reason for this lies in the fact that although employment fluctuates in both countries, the number of unemployed in industrial crises of the past has not been in excess of the local means of dealing with the problem, either by municipal measures or by measures of private charity. As the conditions in America approximate European conditions, unemployment legislation, as also other forms of social legislation not now obviously necessary, may become so.

387. *Unemployment.*—The medieval system of obligatory labor and corresponding obligations on the part of the masters of the laborers has already been described. In theory each man had his place in medieval society, but he was obliged to remain in that place, though practice did not always conform to the theory. Obligations were evaded on both sides. Cynical injustice and excessive cruelty often made hard the life of the medieval cultivator.

Above all there was no freedom of movement, unless everything was abandoned by flight. The modern system has given mobility, but many of the compensations of medievalism have disappeared. The legal right to a definite place in a social group is no longer recognized, and unless a man can gain a footing by some means he finds himself in the same position as an outlaw with the difference that the outlawry is not always due to his own act.

All governments are reluctant to encounter the difficulties which would ensue upon the recognition by the State of the right to employment, but in all countries there exist more or less effective measures for dealing with unemployment.

The chief point of interest during recent years has

been the systematic attempt to differentiate the occasionally unemployed from the chronically unemployed. The former class has been dealt with in Germany by means of labor colonies and in Holland to a small extent by labor colonies, but more especially by municipal relief-works. The latter class has been, in effect, forced into pauperism properly so-called, and has been prevented from encroaching upon the means of relief provided for workmen who are habitually employed, but who, occasionally, are obliged to seek relief because they are out of employment from sickness, depression of trade or other like causes.

388. *Insurance against unemployment.* — Insurance against unemployment has been the common practice of trade unions and some friendly societies; it has begun to be regarded as one of the functions of the State. It is clear that the strain upon any state system must come during a long period of depression of trade or during an epidemic of strikes.

CHAPTER VII

SOCIALISM

389. *Origin and history of socialism.*—Socialism may be provisionally defined as a group of ideas, partly of an economical and partly of an ethical character, concerning the future of society. These ideas, the more general aspects of which will appear from the following pages, have been promulgated and held by some who have regarded them as embodying a new science of society and by others, with so much passionate devotion, that the group of ideas is frequently regarded by them as a religion.

The historical origin of what is usually called modern socialism may be attributed to the combined effect of the ideas of political freedom whose development was the characteristic of the eighteenth century, and the development of the large industry which was characteristic of the first half of the nineteenth century. On its literary side, socialism owed its origin to the almost contemporaneous writing of two groups; one in England and Ireland, represented by the cotton manufacturer, Robert Owen, and by the Irish gentleman, William Thompson, who was inspired by Jeremy Bentham, whose destructive criticism of English law brought about its revision; and the other group in Paris, consisting of Saint-Simon (whose *Nouveau Christianisme* inspired the social views of Carlyle and Ruskin; Fourier,

(whose influence upon French political and economic thought was greatest between 1845 and 1850 and between 1865 and 1870); Proudhon, who was the father of modern anarchism; and Considerant, whose rôle was rather that of chronicler than of originator.

The socialism of 1830 was vague and varied, but it contained the germs of most of the subsequent ideas on the subject. It should be realized that from the middle of the eighteenth century great stress had been laid upon the effects of surroundings upon individual character. The growth of factory industry together with the growth of the towns in which that industry was conducted produced conditions which made deterioration obvious and inevitable. The movement for sanitation which began actively about 1830, the movement for national education which began about the same time but which did not come to fruition until the seventies of the nineteenth century, the movement for Parliamentary Reform which came to fruition in 1832, the movement for free importation of wheat by repeal of the Corn Laws, all absorbed a large part of the energies of the practical reformers of that time. These movements had their beginnings in England, but they were reflected either positively or negatively in other countries and they were associated in more detached minds than those who were actually engaged in them with the fundamental studies in social history and social organization by which the subsequent period was distinguished.

These studies involved the examination of the growth of communities from an historical and legal point of view, and thus the doctrine of the State, which had been reduced to a formula in the seventeenth and eighteenth centuries, came to be revised. The revision resulted in the more or less settled conviction that the State was es-

sentially, not merely a political mechanism by means of which sundry political ends might be served, but that it was related also to the old idea of a community in the respect that it was the organ of a group of persons whose mutual interests bound them together, the essence of this unity being the mutuality of the social relations.

The community thus appeared as a spontaneous social organization the end of which was the interest of its members in all senses, and the state appeared as the indissociable organ of this community by means of which the various ends of the community might be served. The state came to be no longer represented characteristically by a policeman, a soldier and a judge, but rather by the medical officer of health, the postmaster and the fireman. In other words, emphasis came to be laid rather upon the helpful functions of the State than upon its purely repressive and regulative functions. The former conception of the state as a merely negative regulator has, in effect, passed away, and the criticisms upon the state which were based upon that conception, in so far as that conception has decayed, have come to be no longer applicable.

390. *Progress a result of circumstances.*—The various stages in the process have not, however, been accomplished to any material extent through the pressure of propaganda, but rather through the pressure of circumstances. Indeed, the propagandists were often the last to realize that an important step toward their ideal State had already been made, and they were apt to display indifference to such steps and even sometimes to resist them. The German socialists, for example, were at the beginning either indifferent or hostile to the state insurance policy of Bismarck. It was only after it had been in operation for a number of years that they were prepared to acknowledge that it formed a step toward at least some of their own aims.

It must not be supposed that this great change in the doctrine and in the practice of the state is necessarily an indication of social progress in the large sense. Certain counter disadvantages may probably be set against the advantage which the change has implied. The greater care for the individual which the state appears to have manifested may be accompanied by less care by the individual for himself. The state is trusted to such an extent that the individual may have become heedless and indifferent to personal responsibility. Some observers have noticed, even in new countries, a lack of initiative which they attribute to the subtle influences of the assumption of wide powers by the state. There is probably a net balance of advantage when all such adverse incidents are taken into account. It cannot be supposed that the process of development is at an end, nor can it be predicted how long the present phase may last.

Having sketched roughly some of the incidents of social progress, let us ask specifically what is the relation of socialism to that progress.

Socialism may be considered as a series of doctrines relating to social progress. These doctrines cannot be fully developed here; only the outlines of them can be given. Special treatises should be consulted upon each of them.

391. *Classification of socialist doctrines.*—Irrespective of the historical order of their development, these doctrines may be summarily classified as follows:

(a.) Those which are based upon the doctrine that labor is the source of all value, and that, therefore, the laborer has the "right" to the whole of the produce.

(b.) Those which are based upon denial of any "rights" of individual property, regarding the community as the sole custodian of the "rights."

(c.) Those which are based upon the view of history which regards it as chiefly a record of the struggle of classes, the earlier struggle having been conducted against the aristocracy by the middle class —the class intermediate between the large owner of property and the owners of no property or the proletariat—the later struggle being between the middle class and the proletariat. Acording to this doctrine the middle class has now attained political preponderance in all countries by wresting it from the land-owning class. What is called democracy is thus really the rule of the middle class. According to this doctrine, also the struggle for political and economic power, which is now going on, is between the proletariat or non-propertied class and the middle class. Those who entertain this view lay great stress upon the inevitability of political evolution, and they regard the victory of the proletariat as quite certain, the period of the victory alone being undiscoverable.

(d.) Those which are based upon the idea that by means of the spreading of education, and of the steady application of legislation as well as by means of voluntary agencies of many kinds, the principles of brotherhood and altruism or self-regardlessness will become so dominant that there will arrive a society in which the only competition will be competition in well-doing.

(e.) Those which are confined to the idea that the nation should possess and retain under its own administration all the means of production and that every one being offered equally an opportunity to work, the existing inequalities of well-being would largely disappear.

(f.) Those which, while based upon the views under headings (a) and (c) involve "direct action" to attain the desired ends, instead of waiting for what appears to be the slow process of social evolution.

(g.) Those which are based upon the idea that the modern organized State, no matter under whose control it may act, either nominally or really, is an engine which is always used against the non-propertied classes and in favor of the well-to-do. Under this doctrine, the State should be abolished altogether, national boundaries should be obliterated, and men left to group themselves spontaneously into such groups as they might determine, the essential condition being that no support by law or force should be given to those who exploit the labor of others.

392. *Explanation of socialist doctrines.*—It is better to associate the complex expression "socialism" with these different and even contradictory views than to affix to each of them a label which may be taken instead of the description, and which, therefore, may readily be misunderstood. For the sake, however, of those who are disposed to make further inquiry into the subject, which is one of the most important of modern times, the following may be found to be useful:

(a.) The doctrine that labor is the sole source of value is derived from a too literal rendering of Adam Smith's theory of labor as one of the determinants of value. The view was put forcibly by William Thompson in his *"Labor Reward"* and by others, especially by Karl Marx, who probably derived the sug-

gestion from Thompson, although he worked out the doctrine in greater detail.[1]

(b.) This doctrine is popularly known as communism. Its chief advocates of it in modern times have been Proudhon and Prince Kropotkin. The best statement of the doctrine is to be found in the numerous pamphlets of the latter.

(c.) The materialistic view of history was stated by Montesquieu, but it was fully developed and connected with the view of the class struggle by Karl Marx who, indeed, seems to have regarded himself as the originator of both these views. Statements of them will be found in his works.

(d.) This is the view of large groups in Europe and America who are customarily described as Christian Socialists; similar views are held in Germany and France by academic socialists.

(e.) Many who call themselves socialists, or more accurately collectivists, hold the views described under this head. They are not interested in the class struggle and would, indeed, regard with complacency a collectivist state in which the dominant political class would consist of those annuitants who had surrendered their enterprises to the state in return for perpetual annuities.

(f.) "Direct action" is advocated as a policy by the syndicalists who regard the workers as the only rightful possessors of the means of production and who suggest that factories, mines, etc., should be taken in detail, by force if necessary. If they cannot be taken, they may be destroyed in order to bring the capitalist system to an *empasse*.

[1] In connection with this doctrine Marx's *"Capital"* should be read, although it is a difficult book for any but an ardent student, with some preparation in logic and in the history of economic theory.

(g.) The doctrine of Anarchism was formulated by Produhon and developed by Bakuin, a Russian proprietor who became involved in revolutionary movements in Germany and in Italy. His ideas represent a reaction against not merely an autocratic state, but against autocracy in any movement. He resented, for example, the autocratic element of which Karl Marx was the chief exponent in the International Working Men's Association, and he objected to collectivism on the grounds that it involved the exploitation of the private individual by the State, and that such exploitation was not less injurious than the exploitation of individuals by one another.

It may be remarked that, while these various forms of the group of doctrines which have acquired the generic name of socialism, vary widely from one another, they have one essential point in common. They all rest upon the assumption that human nature is not merely susceptible of improvement, but is susceptible of perfection. This assumption became widely prevalent in the discussions on social progress in the eighteenth century, and it has ever since been a latent or explicit assumption in all socialistic doctrines. Discussion of the validity of this assumption is beyond our field.

393. *Various methods.*—Apart from the doctrine of socialism, there are the methods by means of which a given system may be brought into existence. Some of these are invalved in the statement of the doctrines—Syndicalism, for example, is really a method rather than a doctrine—but some of the doctrines may be associated either with one method or another.

For example, the collectivism or state socialism of Marx, indicated under the headings (a) and (c) in the above outline, may be attempted by peaceful and grad-

ual means or it may be attempted by violent revolutionary means with a view to its immediate establishment. Marx was not oblivious to the fact that the organization of a single socialist state in his sense, while all others remained in the capitalist phase, would be an affair of great difficulty, and he, therefore, urged the need of an international movement in order that all of the industrial nations should be brought to the point of adopting state socialism simultaneously. His watchword, therefore, was, "Wage workers of all nations, unite!"

While small international groups have been formed from time to time, and while attempts have been made to turn international peace movements into directions favorable to international organization of labor, these attempts have not been conspicuously successful. Indeed, the socialist parties in Germany and France are strongly national. Their members are Germans and Frenchmen first and socialists afterwards. International socialist congresses notwithstanding, international socialism does not seem to have increased in force during the past forty years.

The present position of revolutionary socialism, in the sense of Marxists' collectivism, may be put briefly thus. There is, to begin with, the party of devout Marxists for whom "Capital" is a sacred book, and who read the writings of Marx in a dogmatic and uncritical spirit. Then there are the Revisionists or Marxists, who, in general, believe the *credo* of Marxism, but who are disposed to make critical emendations. They are not convinced, for example, that Marx's doctrine that every nation must pass through these phases, the agricultural, the capitalist industrial, and the socialist industrial, is valid under all circumstances. The disputes between these two parties in the Marxist camp have

for some years occupied their minds in recondite and sometimes futile discussions, and they have paralyzed their energies. The success of syndicalism may be attributed largely to that fact.

The Syndicalists offered something immediate while the Marxist paradise seemed to be always becoming more vague and more distant. The concessions made by nearly all the modern governments have also militated seriously against the socialist propaganda as also have advances of wages and general briskness of employment. When business and wages decline, there is then offered "rich material for agitation." The socialist movement in America has followed the course of the socialist movement in Europe and the same parties have developed. Here, again, the disputes between orthodox Marxists and the Revisionists or other newer groups have paralyzed their activities. Yet, it may perhaps fairly be said that by far the larger number of recent foreign immigrants belong to one or another of the socialist groups, and that any industrial disturbance might suddenly reveal a formidable latent force in the socialist idea, however critically its phases may be viewed.

394. *Significance of the movement.*—In general, it must be allowed that socialism has done much to intellectualize the workingman. The reader even of the popular socialist tracts must be an intelligent man; and the reader of Marx must possess ability much above the average. Constant assertion of the class struggle and insistence upon "class consciousness" has had the effect of bringing many workingmen to the position that knowledge cannot be permitted to become the exclusive property of well-to-do people, and, sometimes laboring under great disadvantages, they have set themselves to understand the difficult questions in which the relations of

capital and labor are involved. It is very clear that those who have the administration of labor must be, at least, as well informed.

QUIZ QUESTIONS

(*The numbers refer to the numbered sections in the text*)

PART I: PRODUCTION

CHAPTER I

1. What is the science of economics?
2. Discuss the social aspect of economics.
3. Why is the study of economics important to the business man?
4. What is the economic side of governmental activities?
5. Why are the processes of production and consumption likely to be underestimated in individualistic industrial societies?
6. Illustrate the indispensable and contingent conditions of organized production.
7. Why is it necessary to emphasize the social point of view in relation to the economic processes? How does social instability affect the economic processes?
8. What is the purpose of the economic processes?
9. What is meant by the "national dividend"?
10. In what way does unproductive consumption diminish the "national dividend"?

CHAPTER II

11. Define Production.

12. Of what importance is the system of production to the nation as a whole?

13. What are the characteristics of *simple* production? Illustrate.

14. What are the requisites of simple production? Why is it sometimes necessary to restrict access to raw materials?

15. Discuss the division of labor in simple production.

16. What are the characteristics of *complex* production? What is the function of the instrument?

17. What requisites appear in complex production that are not present in simple production?

18. Is it possible to determine the owner of the finished product? If so, how?

CHAPTER III

19. Why is it that ideal economic justice is unattainable?

20. Would it be just to allocate the whole of the product to labor? If not, why?

21. What are the factors of complex production? Why is each of them necessary?

22. What is meant by *fixed* and by *circulating* capital?

23. What are the sources of capital?

24. Describe the functions of each of the contributories to production.

25. Give an account of the law of increasing returns.

26. What are the checks upon the operation of this law? Has the law of increasing returns any relation to the formation of the large industrial combinations?

27. What conditions must be present for the successful operation of the law of increasing returns?

28. Describe the operation of the law of diminishing returns. Illustrate its application to agriculture.

CHAPTER IV

29. Account for the importance of transportation as an incident in production.

30. What are the economic effects of improvements of transportation?

31. Is transportation wasteful? Why?

32. Describe the methods of transportation which have been used and discuss their efficiency.

33. What is the effect of a new transportation route on markets?

34. How does transportation affect the mobility of labor and capital?

35. What effect does the increased mobility of labor and capital have on the price of land?

36. What are the economic effects of improvements in urban transportation?

CHAPTER V

37. Describe the stages in the process of production.

38. What are the characteristics of the Exploitative or Extractive stage?

39. Give an outline of the conditions under which medieval agriculture was conducted.

40. What were the land owners' privileges and duties under compulsory cultivation? In what country did free hired labor first appear?

41. Account for the change from the system of bondage to the system of free hired labor. Account for the commercialization of land ownership.

42. What system of land ownership preceded the mediæval and modern systems? Explain it.

43. How did the traditional objection to the sale of land arise in certain European Countries?

44. What are the relative advantages of large and small farms?

45. Show how the increased nobility of labor due to the cessation of bondage facilitated the growth of industry.

46. Describe the effect upon European agriculture of the development of wheat cultivation in America.

47. Account for the fact that in Great Britain the price of land was maintained while rents fell.

48. Describe the system of metayer tenancies. Give a sketch of the condition of landowning in Europe.

49. Why is the production of wheat assuming great importance? Which are the great wheat-growing countries?

50. Account for the great increase in the cultivation of wheat in Russia and in the Argentine.

CHAPTER VI

51. What causes have resulted in the change of the wheat-growing areas in the United States and Canada?

52. Why are there specialist wheat farmers? What are the economic effects of this specialization?

53. Why is agricultural capital relatively immobile?

54. "All agricultural communities borrow." Explain this statement.

55. Compare the hazards of farming with the hazards of manufacturing.

56. Why does the borrower of small sums of money require to pay relatively more for the accommodation than the borrower of large sums?

57. What effect has the extension of the branch-bank system had on the farmers' interest rates?

58. What evils are the result of usurious rates?

59. How do the farmers in the Canadian northwest make the most of easy-borrowing facilities?

60. How much can be borrowed ordinarily on an improved quarter section in western Canada? How does distance from the centers of population affect the rate on farm mortgages?

61. What is the farming situation in the Canadian northwest?

62. What is the effect of the provision in the Canadian Bank Act (1913) which enables a farmer to give a lien on his movable property as security for a bank loan?

63. Describe the characteristic features of co-operative credit and discuss the advantages and disadvantages of it.

64. Why is usury vanishing? How do farmers in the Canadian Northwest secure co-operative credit without formal organization?

65. Are co-operative credit societies as necessary as they were formerly?

66. What considerations must the farmer keep in mind in marketing his wheat crop?

67. How does the farmer market his produce?

68. How does grading affect the price?

69. Trace the course of wheat from the local elevator to the market.

70. How is the crop movement financed?

71. What are the advantages and disadvantages of speculation by the farmer in grain grown by himself? Discuss this (1) from the point of view of the farmer; (2) From the point of view of the consumer.

72. Account for the diminution of ranching in the prairie provinces of Canada.

CHAPTER VII

73. Why is capital sometimes diverted into gold mining, in excess of possible production?

74. Give an account of the chief incidents in the history of the Rand mines in South Africa.

75. What are the reasons for the relatively slow development of gold mining in British Columbia?

76. Trace the changes in the value of silver expressed in the term of gold.

77. What are the principal causes for the fall in the value of silver in terms of gold?

78. Give an outline of the legislation of the United States on the silver question.

79. What has been the effect of this legislation?

80. Indicate the effect on the demand for commodities which enter into ordinary consumption of a new mining camp.

81. From what countries has the labor and capital used in copper mining been drawn?

82. Where are the large nickel mines?

83. Describe the early developments in iron mining.

84. What were the effects of the war of 1812–14 between the United States and Great Britain and of the Peace of 1815 on iron production?

85. What are the chief reasons for the comparatively low cost of the production of iron in the United States?

86. Trace the developments of the iron industry in Canada.

87. Where are the chief coal fields of the world? What invention was a big stimulus to coal mining?

88. Illustrate the operation of the laws of increasing and of diminishing returns from coal mining.

89. What are the causes of the economical methods of coal mining in the United States as compared with those in use in Europe?

90. What are the general causes of the relatively high wages of agricultural laborers?

CHAPTER VIII

91. Describe the function of the manufacturing employer.

92. Discuss the effect upon manufacturing industries of concentration and specialization.

93. What have been some of the consequences of localization of industries? Examine the system of granting bonuses by municipalities to industrial enterprises.

94. Give a list of the desiderata in selecting a locality for an industrial enterprise.

95. Account for the proximity of industries of a diverse character.

96. Mention some of the important causes of overproduction.

97. Why is it that a certain proportion must be ob-

served between the production of high durable but therefore not immediately wholly consumable goods and that of goods that are immediately wholly consumable?

98. What are the economic effects of over-production of railways? Mention some conspicuous instances.

CHAPTER IX

99. Is over-production of agricultural products possible?

100. Is marketing a phase of production?

101. Does the making of a favorable bargain by one of the parties to a transaction increase the wealth of a nation to which both parties belong?

102. Is "exploitative bargaining" injurious to the "national dividend"?

103. Is advertising economically justifiable?

104. Under what conditions may advertising benefit the consumer? Illustrate the laws of increasing and diminishing returns from the practice of advertising.

105. Discuss the economic justification of the middleman.

106. What are some of the implications of the growth of distributive co-operation?

107. Describe the conditions in seasonal trades. Illustrate. What would be the economic effect of a charitable endowment for the purpose of maintaining tradesmen in seasonal trades during the period when they are not employed?

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CHAPTER I

108. What are the characteristics of barter?

109. Give examples of primitive barter.

110. What is the principal characteristic of money? Give an account of barbaric money.

111. To what circumstances is the position of gold and silver as money due? What is the relation of the payment of tribute to state control of currency?

112. Explain the meaning of the expression, "Common denominator of value." Does the expression "measuring rod" sufficiently explain the function of money?

CHAPTER II

113. What are the foundations of value? Explain the expressions "value in use," and "value in exchange."

114. What are the most conspicuous criteria of utility?

115. Discuss the relation between desire and utility.

116. State the "law of diminishing utility." Give an example.

117. Illustrate disutility.

118. Trace the connection between the physical properties of things and their utilities. Explain what is meant by the word commodity.

119. What is meant by a free gift of nature?

120. How does exchangeability affect value?

121. Define "effective demand."

122. Discuss the relation between supply and demand. What are the immediate and remoter effects of an increased demand upon the supply of a commodity the raw material of which is abundant?

123. What is meant by the "law of substitution"?

CHAPTER III

124. Explain the different senses in which the word market may be used.

125. Describe the market at Nijni Novgorod.

126. Do safe routes benefit a market?

127. Name well-known modern and ancient market places.

128. Give some examples of local markets. Narrate from personal observation the course of affairs in some local market.

129. Describe the characteristic features of the market in a general sense.

130. What should we consider in a study of the market?

131. Indicate the groups of which a market is composed.

132. How is the market price arrived at? Under what circumstances do prices fall in a market? Under what circumstances do prices rise in a market?

133. Account for the influences of one market upon another.

CHAPTER IV

134. Discuss the medieval expression "a just price."

135. Are customary prices and variations in prices inconsistent? Explain.

136. What is meant by the expression "Money is the standard of value"?

137. Upon what conditions do the relative values of gold and silver depend? Describe the effects of changes in the quantities of the precious metals available for currency purposes.

138. Discuss the influence of monetary law upon currency. What was the extent of the influence of the Latin Union?

139. Why does a change in the price of silver affect the prices of commodities in international exchanges?

140. What does bimetallism mean? Why must bimetallism be a matter of international agreement? What is the object of bimetallism? To what extent would the adoption of bimetallism render prices less variable?

CHAPTER V

141. In what manner do climatic changes affect prices? Illustrate. What are some of the effects of a deficiency in the wheat crop? In what way does it influence supply and demand? What are some of the effects of an abundant harvest?

142. Discriminate between those public expenditures which increase demand from those which merely divert it. What effects has war upon the demand and supply of foodstuffs? Discriminate between different cases.

143. Account for the varying influence of political events upon prices.

144. Describe generally the influence upon prices of changes in production.

145. In what way does demand stipulate supply and diminish price? How does diminished price react upon

the cost of production? What is meant by the marginal manufacturer?

146. Discuss the action of the law of substitution in relation to the process of these.

147. Explain the expression "complementary groups of commodities."

148. Under what conditions does an increase in the population result in an increase in demand?

149. What are the causes of the concentration of population in urban centers?

150. What are the causes of rural depopulation?

151. Discuss the economic effects of migration in relation to prices.

152. How do changes in the standard of comfort affect demand? How has increased demand reacted upon the price of tea? What are the chief causes of the increase in the price of beef?

153. Give illustrations of the manner in which the change of fashion has influenced prices.

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154. What is the rôle of competition in the new determination of prices?

155. Explain the expression "monopoly."

156. Does a monopoly of supply necessarily mean an excessive price? What is the monopoly price?

157. Distinguish between a legal monopoly and an attempt at commercial monopoly.

158. What contingencies affect the exercise of monopolies? How does the law of substitution affect the exercise of monopolies?

159. Give a sketch of the history of the monopoly of

carrying letters and messages with which the British Post Office is endowed.

160. Account for the difficulty of making a monopoly of any kind effective.

161. Discuss the operation of a "trust."

162. Are monopoly prices excessive?

163. What is the reason for the attitude of public aversion from commercial combinations?

164. Examine the statement "landowning is natural monopoly." Why is land hard to monopolize? Discuss some of the results of commercialization of land. What is meant by the mobility of property in land?

165. What is the history of fluctuation in land prices?

166. In what sense do areas of land compete with one another?

167. Describe the connection between the price of land and the rate of interest and account for it.

168. Show how the change in geographical relations caused by the opening up of the new routes has affected prices of commodities. Estimate some of the economic effects of the opening of the Panama Canal.

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169. In what manner does the expansion or the contraction of credit affect prices?

170. How does the quantity of money in circulation affect prices?

171. What is the effect of periodical payments on prices?

172. Describe the clearing house system. How are "legal tenders" used?

173. What is meant by the "autumnal drain of gold"?

174. Explain the expression "velocity of return capital."

175. What is the relation of gold and silver to credit? What have been effects of large new increments of gold?

176. How may customs duties upon imports affect the amount of gold in circulation? How may differential railway rates be employed to increase a gold reserve? What is meant by "gold reserves"?

177. Define fiduciary currency.

178. What are the limits of the issue of a fiduciary currency?

179. What is the effect upon prices of commodities of an excessive issue of fiduciary currency? What is the effect upon the character of the money in circulation when excessive issues of fiduciary currency take place?

180. What are the chief constituents of international balances?

181. What are the chief causes of credit crises?

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183. Describe the means which may be taken to avoid credit crimes. Can gold reserves be excessive? What is the effect of hoarding gold?

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185. How does an excise duty affect the price? An import duty?

186. Upon what principles can it be discovered whether the consumer or the foreign producer bears the burden of an import duty? What conditions ought to be kept in mind in investigating the economic effects of an import duty?

187. What is the general effect upon prices of speculation? What is the justification of wheat "futures"?

188. Examine the provision regarding bank liens upon wheat in the Canadian Bank Act, 1913. Under what circumstances may a "corner" in wheat be successfully carried out?

189. Examine the statement that if there were some other "measuring rod" than gold or silver, there would be fewer fluctuations of prices of commodities.

190. Is a general advance of prices a usual phenomenon? Discuss. What is the relation between prices and wages?

191. State the theory of trade cycles and discuss its validity.

192. Why is distribution necessary? Is distribution necessary under a system of simple production?

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193. Why is "ideal justice" impossible of realization?

194. If every one were rewarded with the whole value of his product, would there be equality of possession?

195. Communism is the only system in which complete equality is possible. Discuss this statement.

196. Show the relation between the factors of production and the shares in the value of the product. Describe the medieval practice in distribution and discuss its advantages and disadvantages.

197. Describe the influence of the guilds upon industrial regulation.

198. Indicate some of the consequences of the decay of the medieval system of control. Account for the rise of the class of free hirable laborers and describe the effect of this upon wages.

199. Account for the emergence of competition. Describe some of the economic effects of the mobility of labor.

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200. Why does the value of the product in the market afford no indication of the relative share of the contributories to production? Illustrate.

201. How are productive enterprises classified? What is the present tendency in productive enterprises? Why?

202. What factors have contributed to the growth of large corporations? What are the consequences of this development?

203. How has the development of large enterprises affected the relations between large and small capitalists?

204. What are the functions of the entrepreneur? How does he discharge them?

205. How are the results of production distributed?

206. How may the surplus be divided?

207. Does the entrepreneur determine what shall be the share of each contributory to the productive processes?

208. Under what circumstances does an advance in the price of the finished product react upon rent, interest and wages?

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210. Profit arises either by design or adventitiously. Explain.

211. Describe the normal rôle of the shareholders in joint stock enterprises. Why is it difficult for them to exercise effective control?

212. What are the objects of employers' associations?

213. What is the significance of the development of superintending labor?

214. Account for the relatively high salaries of competent superintendents.

215. Why is a competent superintending class of advantage to manual labor? Is it economically advantageous for a country to extend public funds for the provision of technical education?

216. What are the characteristics of the labor market? Classify manual laborers. In what way is competition in the labor market mitigated?

217. Discuss the advantages and disadvantages of the establishment by trade unions of an uniform wage.

218. Discuss "old age pensions."

219. Why is it difficult to organize labor in trades in which the requisite skill is low? What is the relation of the system of uniform wages to the organization of labor?

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221. In what sense is labor a perishable commodity? What are the characteristics of a laborer as such?

222. Is the value of wages determined in the same manner as that of other commodities?

223. Distinguish between nominal and real wages.

224. How are wages determined?

225. What is meant by marginal wage?

226. Discuss the demand and supply prices of labor.

227. Explain the meaning of reserve price of labor.

228. What is meant by the reserve of labor?

229. What factors influence the labor reserve?

230. Discuss minimum and maximum wages.

231. Examine the doctrine that the value of products is due to the labor which is exercised upon them.

232. Why is distribution not based upon the product?

233. In what sense are wages advanced by capitalists?

234. How does voluntary co-operation accomplish the same object as capitalism?

CHAPTER V

235. What is the essential feature of modern industrial organization?

236. Describe the beginnings of trade unionism.

237. What were the characteristics of the new unionism? What has been the effect on trade unionism? What was the significance of the strikes in Great Britain in 1911? Distinguish "the general strike" from an ordinary dispute about wages.

238. Describe the advantages of trade unionism.

239. Under what conditions will a strike for an advance of wages be likely to succeed?

240. What is meant by collective bargaining? Indicate its advantages. Why is it objected to by the Industrial Workers of the World?

241. Give an account of the economic effects of trade unionism. Give a brief account of the present phase.

242. Discuss the status of trade unionism in the United States.

243. To what does trade unionism owe its origin in Canada? Has trade unionism grown in Canada? Why?

244. Account for the growth of international trade unionism in America and the absence of it in Europe.

245. What is meant by the expression "open shop," "closed shop"?

246. Why are the wages of women in general less than those of men?

247. Under what circumstances are voluntary union men's wages paid?

248. What are the arguments for and against a statutory maximum wage?

249. What are the economic effects of the fixation of a statutory maximum wage?

250. Examine the argument for conciliation and arbitration in labor disputes.

251. Give an account of the relation of trade unionism and economic theory.

CHAPTER VI

252. Why did all interest appear in the middle ages to be usury? Account for the idea that interest is paid for the use of money.

253. How did the idea that interest is the reward of saving arise?

254. What element of truth lies in each of these ideas?

255. Explain the *agio* theory of interest.

256. Analyze the constituents of the market rate of interest.

257. Distinguish between the different compartments of the money market.

258. Why is there more competition in the money market than in any other? Why is concentration of capital indispensable under modern industrial conditions? Give a list of the important local money markets and explain the reason for the place of each of them in the international market. Account for the relatively high rate of interest in new countries.

259. What is the function of capital?

260. Why is the accumulation of capital indispensable to progress? Account for the chronic scarcity of capital in relation to the demand for it. Illustrate the answer, using an illustration other than railways.

261. Why were the American railways constructed at a minimum of cost?

262. What was the effect of American railway construction on Europe? Explain the expression "velocity of return of capital."

CHAPTER VII

263. Distinguish between the practice in Europe and that in America respecting ownership and occupancy of land.

264. Account for the emergencies of rents in a country where obligatory labor has been in vogue. Upon what valuable consideration was the payment of such rents based? What is non-economic rent?

265. What were the advantages of indefeasible occupancy of land? Account for the commercialization of land.

266. Discuss the benefits and drawbacks of farming under conditions of tenancy.

267. On what grounds does the policy of speedy alienation of public lands commend itself to the governments of new countries?

268. What is the result of the increase in land prices?

269. What are the social results of the growth of a landowning and non-cultivating class?

270. Show the connection between the commercialization of land and the development of the theory of rent. Relate the doctrine of economic rent to the law of diminishing returns. Rent is a "net product." Explain this statement.

271. Is it a sufficient explanation of rent to say that it is a surplus? Why?

272. Examine the theory of rent which bases rent upon differential advantage.

273. How far may this theory of rent be extended to account for rents other than those for land?

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274. Into what divisions may the department of consumption be separated? Account for the expediency of this separation.

275. How may the demand of governments for purposes of national consumption be divided?

276. What is the effect of governmental consumption upon consumption in general?

277. How do the heavy borrowings of government and municipalities affect the general money market?

278. What are some of the economic effects of private benefactions?

CHAPTER II

279. Discuss the classification of personal consumption.

280. Illustrate the law of substitution as applied to food.

281. What was the effect of concentration of manufacture upon the character of clothing? How has demand been influenced by standardization of clothing?

282. Is the mechanic of to-day likely to have more domestic comforts than Queen Elizabeth had in her palace?

283. Discuss the advantage and drawbacks of ownership of their house by workingmen from the point of view of the expediency of nobility. Under what conditions were the earlier experiments in semi-philanthropic housing schemes carried on?

284. Account for the disappointment which has attended many housing schemes.

285. Why did the employes of the Singer Sewing Machine Company in Glasgow travel twelve miles daily to their work rather than live in the houses provided by the company?

286. What are the chief reasons for the greater prevalence of ownership by the occupants of houses in America than in Europe?

287. Why is competition in the business of building houses to let them for rent not active excepting after the close of a period of industrial activity? Why is the housing question most acute in new countries? What are the economical reasons against philanthropic housing? What would be the economic effect of the sudden enforcement of drastic public health laws?

288. Account for the growth of the miscellaneous expenditure of all classes.

289. Give an account of the constituents of consumption and account for their relative proportions.

290. Explain the different senses in which the expression "cost of living" may be used. What are some of the effects of an advance in the price of wheat?

291. Do high prices always mean a low standard of comfort and do low prices necessarily mean a high standard of comfort?

292. What commodities have been subject to the most important advances between 1890 and 1909?

293. What are the reasons for the appearance of the products of the extractive industries among the more important commodities which have increased in price

during the last twenty years? Show how the sharpness of the advance of prices disturbs the economic equilibrium.

294. Discuss the relation of the question of the trusts to the question of the cost of living. Illustrate the danger of the adoption of artificial means of checking advances of price. Illustrate the connection between movements in the standard of comfort and movements in prices.

CHAPTER III

295. Distinguish different kinds of national resources in respect to the uses of which they are susceptible.

296. What are the reasons for the indifference to the rate of consumption of natural resources in the United States and Canada in the earlier states of exploitation?

297. Why is rapid exploitation of natural resources necessary in new countries?

298. Account for the rapid growth of organized life in new countries. Why must the people of new countries borrow largely? Why must the people of the United States and Canada produce immediate returns?

299. Discuss the limits of legislative restriction upon exploitation.

300. Why is the community interested in the prolongation of the lives of the persons which compose it?

301. Describe some of the reactions of consumption upon production.

302. How does distribution react upon consumption?

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305. How may the state regulate foreign trade?

306. What are the characteristics of a protective tariff?

307. Under what conditions may the political and commercial interests of the state be divergent?

308. What are the characteristics of a tariff for revenue only?

309. What is the meaning of the expression "free trade"?

310. What are the reasons for the failure in Great Britain of the propaganda for protection? What is a reciprocal tariff?

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311. Describe the change from municipal regulation of industry to state regulation.

312. Is state regulation more practicable under the "factory system" of industry than under the domestic system?

313. What are the general arguments for industrial regulation by the state? What are the arguments for state regulation of industry?

314. Indicate the objections to the bonusing of industries by the state or by the municipality.

315. What is the reason of the state regulation of railways, banks and similar enterprises?

316. What is the relation between the government and the banks in Canada?

317. What are some of the implications of governmental regulation?

318. What are the disadvantages of government control?

319. How are the railways regulated in Canada? In the United States? In England?

320. On what grounds may the reduction of railway rates in general by railroad commissions be regarded at least doubtful?

321. Define a "Trust."

322. Illustrate the above answer by a brief account of the history of a trust other than the Standard Oil Company.

323. Account for the furore against the trusts which exists in the United States.

324. Indicate the difficulties of regulating trusts.

325. Describe the usual process of the formation of a trust.

326. Account for the practice of "stock watering."

327. Examine the conclusion of the Industrial Commission respecting the influence of trusts upon prices.

328. What light does economic history throw upon state administration of public lands?

329. Why are liberal land grants expedient in new countries? Account for the large land grants to railways in the United States and Canada.

330. Why must unoccupied areas be colonized as rapidly as possible? What difficulties lie in the way of resumption by the state of the public lands? Would the nationalization of land necessarily increase the "national dividend"?

331. Enumerate the advantages of state operation of industry and trade.

332. On what grounds may the increase of the national dividend under a collectivist system be doubted?

333. How far is the growth of the trust consistent with collectivism? What effect upon international commerce and upon the movement of capital would be produced by a collectivist system adopted by one nation only?

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336. Why is it to the interest of creditor countries to admit imports without undue impediments? Indicate some of the economic effects of the extensive borrowing of money by Canada from Great Britain.

337. In what form have loans been received by Canada? Show how the imports of a country should be analyzed in order to ascertain how far national consumption is for productive purposes.

338. Why is it that countries where industries are highly protected cannot export manufactured foods except by "dumping" and must therefore export either raw materials or partially manufactured goods? What are the characteristics of a prohibitory tariff?

339. Give a brief sketch of the tax policy of Canada. Account for the reluctance on the part of the peo-

ple of the United States and Canada to impose heavy taxes upon land.

340. Indicate the changes which have taken place in the doctrine of the functions of the state. How does the state endeavor to equalize wealth?

341. Give an outline of the theory of taxation. What is the relation of the doctrine of the absolute sovereignty of the state to the theory of taxation?

342. Who pays the taxes?

343. From what source is a tax upon unused land paid?

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348. What is the connection between the development of the money market and the growth of government loans?

349. Describe the method in which banking is facilitated by the existence of government securities.

350. Explain the various methods which are adopted in issuing government loans.

351. Account for the fall in the price of the securities of a stable government.

352. What is the relation between such a fall and the rate of interest?

353. What are the characteristics of the National debt of the United States? Where are Canadian bonds largely held?

354. Describe the terminable annuity system.

355. Explain the methods of conversion and redemption of public debts.

356. Discuss the question of state monopolies.

357. What is the bearing of the law of substitution upon state monopolies? Illustrate. Indicate the economic limits of state and private monopolies. Does state monopoly as applied to public services always obviate the difficulties which arise in the performance of these services by joint stock companies?

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364. Account for the heavy expenditure of municipalities in Canada and the United States.

365. Why are municipal debts increasing so rapidly in America?

366. Discuss the reactions of the taxation of land and the exclusion of improvements.

367. Describe briefly the course of municipal history.

368. How does the Local Government Board aid in financing municipalities? What is one of the practical results of this method?

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370. Discuss the relative advantages of utilizing the profits from municipal enterprises in reduction of taxation and in the reduction of the price of the services or in the improvement of them.

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373. What is the status of municipal enterprise in the United States?

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380. Discuss the advantages and disadvantages of the short working day.

381. What were the defects in the law of employers' liability which led to the demand for workmen's compensation for industrial accidents?

382. Give a short account of the German system of accident insurance.

383. How is the German system financed? Why has it been successful?

384. Describe the English system of workmen's compensation.

385. What has the United States done along these lines?

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388. Discuss the assumption of the cost of compensation for industrial accidents.

389. What are the effects on the workmen of the compensation acts? Illustrate.

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391. Give a brief account of the development of the demand for old age pensions.

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394. Discuss the possibilities of the government's relation to labor exchanges.

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401. Discuss the derivation of the various socialist doctrines.

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